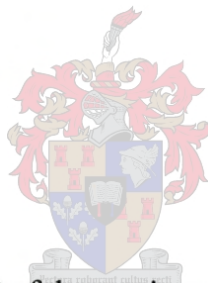


The relationship between collective climate, organisational commitment and intention  
to stay

Ilonka Heyligers-van Zyl



Thesis presented in fulfilment of the requirements for the degree of Master of  
Commerce at the University of Stellenbosch.

A.F. Schlechter

April 2003

## **DECLARATION**

I, the undersigned, hereby declare that the work contained in this thesis is my own original work and that I have not previously in its entirety or in part submitted it at any university for a degree.



## ABSTRACT

A need was identified for a proactive strategy for reducing voluntary turnover levels within the mining industry. From the onset it was established that a multi-dimensional approach would be the most appropriate. Organisational commitment and organizational climate were identified as variables that were likely to influence intentions to stay. Moreover, it was hypothesised that organisational climate would directly influence organisational commitment levels.

Both organisational climate and organisational commitment have been subjected to considerable controversy with respect to conceptual and methodological issues. This has resulted in the diverse array of approaches currently found in the literature and has threatened the usefulness of both constructs. An overview of existing literature indicated that little is known regarding the relationship between organisational climate, organisational commitment and intention to stay within the specific industry.

The current study therefore investigated the existing relationship between collective climate, organisational climate and intent to stay within the mining industry. Research objectives were achieved by means of hierarchical cluster analysis, canonical correlational analysis and standard multiple regressions. All measures were subjected to confirmatory factor analysis.

The results indicated that multiple collective climates existed in the various departments. A positive relationship was found between collective climate and organisational commitment, as well as between collective climate and intent to stay.

## OPSOMMING

'n Behoefta aan proaktiewe intervensies, gemik op die vermindering van vrywillige arbeidsomset, is in 'n organisasie in die mynindustrie geïdentifiseer. Dit was vanuit die staanspoor ooglopend dat 'n multidimensionele benadering toepaslik sou wees. Organisasieklimaat en organisasie-verbondenheid is as moontlike veranderlikes geïdentifiseer wat 'n invloed op omsetbedoelings mag uitoefen. 'n Verdere hipotese had betrekking op die verband tussen organisasieverbondenheid en omset-bedoelings.

Beide konstruksie het reeds aansienlike kontroversie met betrekking tot konseptuele en metodologiese aspekte ontlok. Laasgenoemde het onder meer gelei tot die opkoms van 'n aantal uiteenlopende konseptuele benaderings tot hierdie konstruksie, met die gevolg dat die empiriese bydraes wat hul tot die veld van Organisasiesielkunde maak, toenemend bevraagteken is. 'n Literatuuroorsig het aangedui dat 'n leemte met betrekking tot die onderwerp binne die bepaalde industrie bestaan. Weinig empiriese steun is egter gevind ten opsigte van 'n verband tussen organisasieklimaat, organisasie-verbondenheid en omset-bedoelings.

Die betrokke studie het dus ten doel gehad die ondersoek van 'n verband tussen groepklimaat, organisasieverbondenheid en omsetbedoelings. Ten einde bogenoemde verbande te ondersoek, is gebruik gemaak van hiërargiese tros-analise, kanoniese korrelasionele analyse, asook standaard-meervoudige regressie-ontledings.

Die navorsingsbevindinge het bevestig dat 'n beduidende en positiewe verband tussen groepklimaat en organisasieverbondenheid bestaan. Daar is verder aangetoon dat omset-bedoelinge beduidend met groepklimaat, sowel as organisasieverbondenheid korreleer. 'n Sterker verband is tussen organisasieverbondenheid en omset-bedoelinge gevind.

## ACKNOWLEDGEMENTS

My sincerest gratitude and appreciation to:

- ♦ God, the Father, Son and Holy Spirit.

*I am the vine; you are the branches. If a man remains in me and I in him, he will bear much fruit; apart from me you can do nothing – John 15:5*

- ♦ Mr. A.F. Schlechter, my supervisor, for his expertise and guidance.
- ♦ The management team of the organisation in which the study was conducted, for authorising the study and providing ongoing support.
- ♦ My mother, Mrs. E.M. Lea, for her unconditional support and many sacrifices made throughout my academic career.
- ♦ My husband, Jaco, for his unlimited enthusiasm and interest.



<b>TABLE OF CONTENTS</b>	<b>PAGE</b>
Abstract	(i)
Opsomming	(ii)
Acknowledgements	(iii)
List of Tables	(x)
List of Figures	(xi)

## CHAPTER 1

### BACKGROUND AND RATIONALE

1.1	Introduction	1
1.2	Relevance of the study	3
1.3	The South African context	6
1.4	Purpose of the study	6
1.5	Assumptions	8
1.6	Delimitations	8
1.7	Chapter Outline	8
1.8	Summary	9

## CHAPTER 2

### THEORETICAL PERSPECTIVES ON ORGANISATIONAL, COLLECTIVE AND PSYCHOLOGICAL CLIMATE

2.1	Introduction	10
2.2	A conceptualisation of psychological, collective and organisational climate	10
2.3	The conceptual evolution of organizational climate as a psychological construct	13
2.3.1	The multiple measurement-organisational attribute approach	14

2.3.2	The perceptual measurement-organisational attribute approach	14
2.3.3	The perceptual measurement-individual attribute approach	15
2.4	The role and function of climate perceptions	18
2.4.1	The structural approach	19
2.4.2	SAA (Selection-Attrition-Attraction) Approach	19
2.4.3	Symbolic Interactionist Approach	20
2.5	Antecedents of organisational climate	20
2.5.1	A traditional model of organisational climate	21
2.5.2	A revised model of organisational climate	23
2.5.3	A systems approach to organisational climate	25
2.6	Organisational climate versus organisational culture	26
2.7	Organisational climate and job satisfaction	27
2.8	Dimensions of organisational climate	28
2.9	The measurement of organisational climate	30
2.9.1	Methodological concerns	30
2.9.2	Organisational climate scales	31
(a)	The Litwin and Stringer scale	32
(b)	The Organisational Climate Description Questionnaire – Rutgers Secondary	35
(c)	The Organisational Diagnostic Questionnaire (ODQ-02)	38
2.10	Conclusion	39

## CHAPTER 3

### ORGANISATIONAL COMMITMENT

3.1	Introduction	40
3.2	Consequences of Organisational Commitment	40
3.3	Approaches to the conceptualisation of organisational commitment	41
3.3.1	The Behavioural approach	42
3.3.2	The Attitudinal or Affective Approach	43
3.3.3	A Normative-Instrumental Approach	44
3.3.4	Commitment profiles (commitment as a multi-based, multi-foci phenomenon)	46

3.3.5	Commitment as a cognitive predisposition	49
3.3.6	Aligned commitment as a process theory of motivation	50
(a)	Levels of commitment and resistance	51
(b)	The commitment formula	52
3.4	Dimensions of organisational commitment	55
3.4.1	Affective or attitudinal commitment	55
3.4.2	Calculative, continuance or behavioural commitment	56
3.4.3	Moral or normative commitment	56
3.4.4	Alienative commitment	57
3.4.5	Multidimensional models	57
3.5	An integration of approaches	58
3.6	Antecedents / correlates of commitment	59
3.6.1	External determinants of commitment	62
(a)	Socio-normative change	62
(b)	Economic change	63
(c)	Technological change	63
3.6.2	Personal / individual characteristics	63
3.6.3	Task- or role-related characteristics	65
3.6.4	Work experiences	66
3.6.5	Structural characteristics	67
3.6.6	Climate as an antecedent of organisational commitment	67
3.7	The measurement of organisational commitment	68
3.7.1	The Cook and Wall Organisational Commitment Scale	69
3.7.2	The Mowday, Steers and Porter Organisational Commitment Questionnaire	69
3.7.3	The Hrebiniak and Alutto Commitment Questionnaire	70
3.7.4	The Organisational Diagnostic Questionnaire	71
3.8	Turnover intentions	72
3.9	Conclusion	73



## CHAPTER FOUR

### RESEARCH DESIGN AND METHODS OF ANALYSIS

4.1	Introduction	75
4.2	Research problem and objectives	75
4.3	Hypotheses	76
4.4	Research design	78
4.5	Description of sample	79
4.5.1	Accountants	79
4.5.2	Middle Management: Production	80
4.5.3	Trainers	80
4.6	Scales	83
4.6.1	The Koys and DeCottiis 'Organisational Climate Questionnaire	83
(a)	Development and rationale of the Organisational Climate Questionnaire	83
(b)	Description of the Organisational Climate Questionnaire	84
(c)	Validity and Reliability	85
(d)	Scoring	85
(e)	Motivation for utilising the Organisational Climate Questionnaire	85
4.6.2	The Allen and Meyer Organisational Commitment Scale	87
(a)	Development and rationale of the Organisational Commitment Scale	87
(b)	Description of the Organisational Commitment Scale	88
(c)	Reliability and Validity	89
(d)	Scoring	89
(e)	Motivation for utilising the Organisational Commitment Scale	90
4.6.3	The Shore and Martin Measure of Intent to Stay	91
4.7	Research method	91
4.8	Methods of analysis	92
4.8.1	Confirmatory Factor Analysis	92
4.8.2	Hierarchical Cluster analysis	92
4.8.3	Canonical Correlational Analysis	94
4.8.4	Standard Multiple Regression Analysis	94

4.9	Conclusion	94
-----	------------	----

## CHAPTER FIVE

### PRESENTATION OF RESULTS

5.1	Introduction	95
5.2	Item analysis and reliability of measures	95
5.3	Factor analytical structure of measures	98
5.3.1	The Koys and DeCottiis Organisational Climate Questionnaire	98
5.3.2	The Allen and Meyer Organisational Commitment Scale	101
5.3.3	The Shore and Martin Measure of Intent to Stay	104
5.4	Descriptive data	104
5.4.1	Organisational Climate	104
5.4.2	Organisational Commitment	117
5.4.3	Intent to Stay	118
5.5	Hierarchical clustering results	118
5.6	The relationship between collective climate and organisational commitment	121
5.7	The relationship between collective climate and intent to stay	121
5.8	The relationship between organisational commitment and intent to stay	124
5.9	Conclusion	125

## CHAPTER SIX

### DISCUSSION OF RESULTS, CONCLUSIONS AND RECOMMENDATIONS

6.1	Introduction	126
6.2	Reliability of scales	126
6.3	The existence of multiple climates	128
6.4	Comparison of various collective climates	130
6.5	The relationship between collective climate and organisational commitment	131
6.6	The relationship between collective climate and intent to stay	132



6.7	The relationship between organisational commitment and intent to stay	132
6.8	Summary	133

## CHAPTER SEVEN

### IMPLICATIONS, LIMITATIONS AND RECOMMENDATIONS

7.1	Introduction	134
7.2	Implications of the study results	134
7.3	Limitations of the study	136
7.4	Recommendations for future research	137
7.5	Concluding remarks	138
8.	References	139

## APPENDICES

A.	Cover letter and Questionnaire
B.	Cluster analysis tree diagrams

**LIST OF TABLES**

<b>Table 1.1</b>	Content analysis of researchers' opinions regarding the importance of climate measurement	5
<b>Table 2.1</b>	Historical and contemporary conceptualisations of organisational climate	13
<b>Table 2.2</b>	Factors of the Organisational Diagnostic Questionnaire	36
<b>Table 2.3</b>	Kuder-Richardson Formula 20 for the Organisational Diagnostic Questionnaire	39
<b>Table 3.1</b>	A Commitment – Resistance Continuum	53
<b>Table 4.1</b>	Distribution per age category	81
<b>Table 4.2</b>	Distribution per department	81
<b>Table 4.3</b>	Distribution per occupation	82
<b>Table 4.4</b>	Distribution per job level	82
<b>Table 4.5</b>	Climate dimension, item-total correlation, coefficients alpha	86
<b>Table 4.6</b>	Commitment dimensions and item-total correlations	90
<b>Table 5.1</b>	Climate dimensions, item-total correlations, coefficients alpha	96
<b>Table 5.2</b>	Commitment dimensions, item-total correlations, coefficients alpha	97
<b>Table 5.3</b>	Factor analytical structure of the Organisational Climate Questionnaire	98
<b>Table 5.4</b>	Correlation matrix of the Pressure Dimension	100
<b>Table 5.5</b>	Factor analytical structure of the Organisational Commitment Scale	102
<b>Table 5.6</b>	Correlation matrix of the Affective Commitment Scale	103
<b>Table 5.7</b>	Correlation matrix of the Calculative Commitment Scale	103
<b>Table 5.8</b>	Descriptive statistics - Shaft A	105
<b>Table 5.9</b>	Descriptive statistics - Shaft B	106
<b>Table 5.10</b>	Descriptive statistics - Shaft C	107
<b>Table 5.11</b>	Descriptive statistics - Shaft D	108
<b>Table 5.12</b>	Descriptive statistics - Shaft E	109
<b>Table 5.13</b>	Descriptive statistics - Shaft F	110
<b>Table 5.14</b>	Descriptive statistics - Shaft G	111
<b>Table 5.15</b>	Descriptive statistics - Shaft H	112
<b>Table 5.16</b>	Descriptive statistics - Shaft I	113
<b>Table 5.17</b>	Descriptive statistics - Shaft J	114
<b>Table 5.18</b>	Descriptive statistics - Shaft K	115
<b>Table 5.19</b>	Descriptive statistics - Shaft L	116

<b>Table 5.20</b>	Distribution of collective climate groups	119
<b>Table 5.21</b>	Manovas and Anovas of climate groups per department / shaft	120
<b>Table 5.22</b>	Canonical correlations between collective climate and organisational commitment	122
<b>Table 5.23</b>	Canonical variates: collective climate and organisational commitment	122
<b>Table 5.24</b>	Standard multiple regression of collective climate dimensions on intent to stay	123
<b>Table 5.25</b>	Standard multiple regression of organisational commitment dimensions on intent to stay	124

## LIST OF FIGURES

<b>Figure 1.1</b>	Schema of Research Process	7
<b>Figure 2.1</b>	Organisational climate, psychological climate and climate discrepancy	16
<b>Figure 2.2</b>	A traditional climate model	22
<b>Figure 2.3</b>	A revised climate model	24
<b>Figure 2.4</b>	A systems approach to climate	25
<b>Figure 3.1</b>	A Normative – Instrumental Framework of Organisational Commitment	47
<b>Figure 3.2</b>	An open system model of motivating climate	53
<b>Figure 3.3</b>	A Flow Diagram of Processes and Events Leading to Commitment	61
<b>Figure 4.1</b>	The proposed relationship between Collective Climate and Organisational Commitment	75
<b>Figure 5.1</b>	Collective climate profiles: Shaft A	105
<b>Figure 5.2</b>	Collective climate profiles: Shaft B	106
<b>Figure 5.3</b>	Collective climate profiles: Shaft C	107
<b>Figure 5.4</b>	Collective climate profiles: Shaft D	108
<b>Figure 5.5</b>	Collective climate profiles: Shaft E	109
<b>Figure 5.6</b>	Collective climate profiles: Shaft F	110
<b>Figure 5.7</b>	Collective climate profiles: Shaft G	111
<b>Figure 5.8</b>	Collective climate profiles: Shaft H	112
<b>Figure 5.9</b>	Collective climate profiles: Shaft I	113
<b>Figure 5.10</b>	Collective climate profiles: Shaft J	114
<b>Figure 5.11</b>	Collective climate profiles: Shaft K	115
<b>Figure 5.12</b>	Collective climate profiles: Shaft L	117



## **CHAPTER ONE**

### **BACKGROUND AND RATIONALE**

#### **1.1. INTRODUCTION**

The optimal utilisation of human resources remains one of the more daunting challenges that face managers across all industries, in spite of increasing utilisation of technological resources (Boshoff & Mels, 1995). Phenomena such as voluntary turnover seriously impact organisations' ability to utilise their labour force to its full potential. It is a well-known fact that the absence of employees from work, both temporarily and permanently, greatly hinders the realisation of organisational objectives. "Ensuring that employees want to be and are at work, and stay there, thus become important secondary objectives as turnover has been shown to undermine optimal employee performance" (Boshoff et al., 1995, p. 25).

As employees' personal mobility increase, more and more companies are faced with questions such as:

- How do we retain valued staff?
- Are we considered as an employer of choice in the industry, or is it just another place to work? (Schroenn, 2002).

According to Byrom (2002) human resources are being taken more seriously than ever as companies realise that intellectual capital is their most valuable asset. The well-known adage that "people are our best asset" becomes more important than ever. As a result, many businesses seek to become an "employer of choice" in the belief that this will enable them to attract and retain the best employees. At the same time, however, the old social contract of employee loyalty is on the decline as companies are no longer able to guarantee job security in the face of pressures resulting from global competitiveness (Kinneer & Sutherland, 2000). Employees are therefore making more demands on employers which if not met, may lead to them going elsewhere. The retention of employees is therefore becoming an increasingly important challenge faced by organisations world-wide.



Nevertheless, in spite of the costs associated with turnover, little is being done to address the problem. According to Rich (2002) six reasons may be identified why voluntary turnover is not being managed in organisations:

- The largest cost of turnover, that is lost income and productivity, is difficult to estimate, and is often not included in calculations of turnover costs.
- Few companies have an adequate fact base to be able to track turnover levels and estimate costs accurately, and fewer still know the true root causes of turnover.
- Since costs have not been accurately measured, and causes are largely unknown, it is difficult to motivate investment in actions necessary to reduce turnover.
- Attempts to reduce turnover often focus on solutions employed by other companies, often in different industries. As a result, solutions are not targeted at the company's specific, unique causes.
- Some management teams have accepted turnover as a fact of life in their industry, and believe they cannot improve upon their current levels.
- In most companies it is unclear who is accountable for reducing voluntary turnover.

Rich (2002) suggests that three steps should be followed when addressing voluntary turnover. Firstly direct, indirect and opportunity costs pertaining to voluntary turnover should be calculated. This enables one to identify the problem areas or positions. Secondly, the root causes of the problem should be determined. Finally, a holistic solution for a problem with multiple causes should be formulated.

Notably, the majority of employees seem to believe that low affiliation with their company is the most important reason for changing jobs (Rich, 2002). It is a well-known fact that successful retention-of-skills strategies involve far more than merely adapting remuneration and incentive schemes. Instead, Maitland (2002) refers to a concept of "employee engagement", a phenomenon that involves strengthening the bond or attachment that employees have to their organisation and supposedly increases retention and improves organisational performance.

Boshoff et al. (1995) agrees that the negative consequences resulting from voluntary turnover may be limited by forging stronger membership linkages between employees and the organisation to encourage them to be at work and to maintain their membership. One way to achieve this is to develop strong



feelings of psychological attachment to the organisation among employees, i.e. “organisational commitment”. The stronger these attachments are, the greater will be the reluctance to leave the organisation and disturb them (Werbel & Gould, 1984).

Commitment has been related to many positive consequences, such as performance effectiveness, job satisfaction and reduced turnover, tardiness and absenteeism (Bateman & Strasser, 1984; Greenberg & Baron, 1997; Randall, 1990; Randall, Fedor & Longenecker, 1990). A lack of organisational commitment, on the other hand, is associated with an unwillingness to do more than what is minimally expected. In its extreme form, the absence of commitment may result in negative behaviours, such as aggressive resistance to change (Coetsee, 2002). Guth & Macmillan (1984), for instance, gave evidence that middle managers who believe that their self-interest is being compromised are quite able to redirect strategies, delay its implementation or reduce the quality of its implementation. In a worst case scenario they may even sabotage the strategy. Moreover, low levels of organisational commitment usually result in feelings of discontent with life in general.

## **1.2 RELEVANCE OF THE STUDY**

The long held belief has been that organisational commitment directly impacts the achievement of organisational objectives, with specific reference to voluntary turnover, and should therefore be managed at all times. Despite this evident link, no local studies relevant to the mining industry could be found which links organisational commitment to voluntary turnover or turnover intentions. Moreover, given that managerial behaviour has an important influence on the working environment prevalent in an organisation, and the working environment largely determines whether employees want to exert effort on behalf of the organisation, some clarity is needed as to the manner in which this process of influence may be enhanced. In other words, if one wishes to manage organisational commitment, its antecedents must first be identified. Therefore, the identification of appropriate interventions with respect to voluntary turnover requires a thorough understanding of its relation with organisational commitment. Similarly, an understanding of the effects of organisational climate on organisational commitment, and voluntary turnover, will aid in identifying appropriate interventions.



It has been suggested by some researchers that organisational climate may exert important influences on the development of organisational commitment (Decottiis & Summers, 1987; Roodt, 1992; Schwepker, 2001). Organisational climate has been known to predict, or moderate, certain affective responses of the individual. According to Schneider and Reichers (1983) organisational climate provides a useful alternative to motivational explanations of work behaviour. This is especially true for instrumentality theories “that combine perceptions of the likelihood of attaining some outcome with perceptions of the probability that certain effort levels will lead to a particular level of performance in order to arrive at a summary estimate of motivation” (Schneider et al., 1983, p. 20). Similarly, Litwin and Stringer’s (1968) model portrayed climate as an intervening variable between organisational factors and motivation tendencies. Accordingly, perceived climate arouses motivation, resulting in behaviours that may cause organisational outcomes such as satisfaction, productivity, retention or turnover.

Notwithstanding, only one study that investigated the link between organisational climate and commitment in an educational context could be found (Roodt 1992). According to Roodt (1992) the utilisation of organisational climate as a predictor of organisational commitment poses two important advantages:

- It promotes parsimony and elegance in predictive models as it replaces a large variety of situational variables; and
- It enables the re-conceptualisation of organisational commitment as a cognitive predisposition towards the organisation due to the cognitive nature of perceptions. Such an approach would be useful in terms of construct validation (because of the one-dimensional nature of the construct) and would hopefully elucidate patterns with other job related variables.

Mason (In Byron, 2002) emphasises the importance of taking a proactive approach to the retention of skills by making use of climate surveys. The utility of organisational climate surveys in the context of organisational development has often been acknowledged (Table 1.1). Climate surveys are particularly necessary as “the traditional methods of organisational, management and employee evaluation tend to only skim the surface, and as forthcoming as some companies are, elements of the boss/employee relationship can prevent the communication process from being entirely truthful” (Byron, 2002, p.25).



A climate survey prevents this due to the neutral stance of the facilitator that necessarily impacts on respondents' honesty and the accuracy of reports. Furthermore, climate surveys deal with precise and in-depth information, allowing management to make educated decisions.

**TABEL 1.1      CONTENT ANALYSIS OF RESEARCHER'S OPINIONS REGARDING THE IMPORTANCE OF CLIMATE MEASUREMENT.**

OPINION	AUTHORS
Climate studies facilitate understanding of and clarify behaviour in work groups and organisations.	Gelfand (1972) and Pheiffer (1991)
Climate studies serve as general diagnostic tools for organisational change initiatives.	Pietersen (1990) and Pheiffer (1991)
Climate studies provide an overview of an organisation's climate, management practices, group functioning, individual-task fit and members' satisfaction with the most important aspects of organisational functioning.	Coetsee & Pottas (1990)
Climate measures serve as indications of the degree to which employee expectancies are met (e.g. remuneration and communication issues).	Davis (1984) and Pietersen (1990)
Climate is a predictor of organisational performance and may provide important information in this regard.	Litwin, Humphrey & Wilson (1987)
A work environment that stimulates need for achievement (nAch) is important.	Litwin & Stringer (1968), Finemann (1975), Stroebel (1981), Cronje (1983), Van Rensburg & Raubenheimer (1990)
Climate measures may elucidate the various factors that influences employee performance.	Schneider (1975)

**(Dippenaar & Roodt, 1996, p.20)**

Some studies, however, have failed to show any effects of organisational climate on labour turnover, despite evidence that organisational climate may be related to employees' intention to leave (Boshoff and Boer, 1988; Jackofsky & Slocum, 1988). This failure to prove a direct relationship between climate and organisational behaviour may be attributed to two factors. Firstly it strongly suggests that interaction effects with other variables, such as organisational commitment, may not have been taken into account. This notion is supported by evidence of a relationship between commitment and intention



to stay (Shore & Martin, 1989). Secondly, relationships between predictors and criteria may have been suppressed or diluted due to the exclusion of climate discrepancy measures (Joyce & Slocum, 1982).

### **1.3. THE SOUTH AFRICAN CONTEXT**

A recent international survey has indicated that the South African labour force is characterised by relatively high commitment levels (Bennett, 2002). Of those employees surveyed, 68% indicated commitment to their organisations. True levels of organisational commitment are likely to be lower, however, as high unemployment and poor job security prevents employees from leaving their jobs. Maitland (2002) believes that most South African employees (a) have poor opinions of their organisations, but are unable to leave due to their individual circumstances, or (b) actively seek alternative employment.

### **1.4. PURPOSE OF THE STUDY**

The organisation selected for the present study has been experiencing drastic increases in voluntary turnover during the past year, especially in certain job categories. Furthermore, the type of industry in which it operates has been known for its high levels of voluntary absenteeism. The combined effects of turnover and absenteeism have led to labour shortages which, not surprisingly, impaired organisational effectiveness and resulted in cost implications for the company.

An informal survey within specific occupational groups revealed that voluntary turnover could be attributed to major growth and expansions within the industry, thus creating general increases in lateral career mobility. Other reasons included general dissatisfaction with remuneration and housing benefits, high stress levels, lack of status (job grading and title) and poor work incentives. Although the turnover problem had mostly been addressed by means of salary adjustments and restructuring of packages, some concerns remained with regards to employees' identification with and commitment to the company. The need for a proactive and long-term approach to labour turnover became evident.

The present study therefore aims to investigate the respective relationships believed to exist between organisational climate, organisational commitment and turnover intentions. A schematic presentation of the research process followed with respect to the above objective is outlined in Figure 1.1.

7



## **1.5. ASSUMPTIONS**

Several assumptions underlying the study need to be explicated. First of all, the assumption is made that organisational climate is a unique construct that manifests uniquely within each organisation. Each organisation is therefore conceived as possessing its own unique organisational climate.

Secondly, in view of the extensive role of perceptions in the etiology of organisational climate, it was assumed that respondents' climate perceptions would be based on perceptions about their specific departments, and would therefore not represent the organisation as a whole. The appropriate unit of theory is discussed in the chapter dealing with methodology.

Thirdly, it was not considered meaningful to compare organisational climates in the present study, as no criteria for determining a "best" organisational climate exist as of yet (Verwey, 1990). Some organisational or collective climates are, however, believed to be more functional than others.

Finally, it is assumed that organisational climate is a management function. Therefore interventions aimed at improving it should be targeted at leadership structures.

## **1.6. DELIMITATIONS**

Although it is recognised that other variables (e.g. job satisfaction, climate discrepancy) may account for variance in organisational commitment as well as turnover intentions, a proper account of these variables are considered to be outside the parameters of the present study. Furthermore, the focus of the present study is limited to certain occupational groups. The methodological consequences are discussed elsewhere (Chapter Seven).

## **1.7. CHAPTER OUTLINE**

Chapter One provides an outline of the background and relevance of the study. Brief reference is made to the topic in South African context, followed by the formulation of the study objectives, underlying assumptions, delimitations and an outline of chapters. It concludes with a summary.

Chapter Two provides a literature review of the organisational climate construct. Firstly, an overview of the conceptual evolution of organisational climate is presented and various approaches to the construct are discussed. A short discussion pertaining to climate discrepancy and its importance in organisational climate research is also given. Thereafter the etiology of organisational climate, determinants, dimensionality and measurement thereof is discussed.

Chapter Three has been dedicated to an overview of literature on organisational commitment. Firstly the importance of the construct with respect to its consequences is highlighted. Secondly the various approaches to the construct are discussed, followed by a synopsis of the most salient organisational commitment dimensions. In conclusion, the antecedents and measurement of organisational commitment are discussed.

The research design and methodology used in the present study is outlined in Chapter Four. The chapter deals with a description of the sample group selected, various scales employed as well as the various methods of analysis used in the study.

In Chapter Five the results of the study is reported.

The results are discussed in Chapter Six and conclusions are drawn with respect to the hypothesis tested. The practical implications and limitations of the present study, as well as recommendations for further research are discussed in Chapter Seven.

## **1.8. SUMMARY**

The aim of this chapter was to provide a rational framework within which the relevance and purpose of the study could be discussed. Several underlying assumptions and delimitations to the study were highlighted. In conclusion, an outline of chapters was presented.



## **CHAPTER TWO**

### **THEORETICAL PERSPECTIVES ON ORGANISATIONAL, COLLECTIVE AND PSYCHOLOGICAL CLIMATES**

#### **2.1. INTRODUCTION**

The importance of organisational climate and commitment to the organisation was pointed out in the first chapter. The following chapter aims to provide a historical overview of the evolution of the organisational climate construct, as well as a conceptual framework within which it may be understood. The various approaches to the construct are outlined, including the various methodological problems that have been encountered in past research. Thereafter some of the most prevalent organisational climate measures in existing literature are presented.

The importance of organisational climate has been illustrated by the large number of research that it has stimulated ever since Lewin (In Verwey, 1990, p.21) remarked that “psychological atmospheres are empirical realities and are scientifically describable facts”. Interest in the topic has mainly risen from the assumption that different environments may have different motivational effects on behaviour (Dippenaar et al., 1996). As Tustin (1993, p.1) put it, “knowledge of organisational climate is necessary to acquire an understanding of an individual’s behaviour so that the individual can be managed effectively and efficiently”. Consequently, researchers have come to believe that the climate construct, whether it refers to organisational, collective or psychological climate, offers an useful alternative to motivation as an explanation of worker behaviour, whilst emphasising the importance of group influences in organisational research (Verwey, 1990). Field and Abelson (1982) held the construct as significant in the light of the conceptual link that it provides between analysis at the organisational level and the individual level.

#### **2.2. A CONCEPTUALISATION OF PSYCHOLOGICAL, COLLECTIVE AND ORGANISATIONAL CLIMATE**

Despite its prevalence in literature on organisational psychology, organisational climate remains a controversial and much debated topic, both conceptually and methodologically (Dippenaar et al., 1996; Field et al., 1982; Muchinsky, 1976; Verwey, 1990). Various unresolved conceptual and methodological issues have threatened the usefulness of the construct as a management tool and



have led to a decline in research interest on the topic. These issues have mainly surfaced as a direct result of the multi-dimensional, multi-level nature of the phenomenon (Koys & DeCotiis, 1991). More specifically, the distinction between organisational, collective and psychological climate is viewed as the root cause of the controversy surrounding the topic.

The following conceptual and methodological issues have received considerable attention in the literature (Glick, 1985; Verwey, 1990):

- The appropriate theoretical unit for the measurement of climate;
- Determinants of the climate construct;
- Compositional rules relating psychological climate to organisational climate;
- The interpretation of perceptual agreement;
- The domain of climate; and
- The proposed relationship between organisational climate and organisational culture.

Koys et al. (1991) added the matter of dimensionality and measurement to this list.

Generally organisational climate is defined in terms of the dominant atmosphere that prevails within an organisation, which in turn is determined by the employee's experiences of the work environment (Mentz, 1992). Per implication, organisational climate should not be studied in isolation from related concepts such as organisational culture, quality of work life, performance, work satisfaction, motivation and general organisational health.

Hoy and Miskel (1987) defined organisational climate as a broad term that refers to members' shared perceptions of the work environment of the organisation. Mostly it is defined as an enduring set of internal characteristics that distinguishes one organisation from another and influences the behaviour of its members (Conradie, 1990; Tagiuri & Litwin, 1968). To Silver (1983) organisational climate represents the tone, ambience or atmosphere of an organisation, in other words, the sense that any given environment has certain unique qualities that distinguishes it from the rest.

In spite of the diversity and inconsistency that has characterised the conceptualisation of the construct, Verwey (1990) warns that this should not be interpreted as an indication that the



construct does not exist. Rather, it is possible for various operational definitions to exist simultaneously - each elucidating some aspect of organisational climate.

For the purpose of the present study organisational and collective climate is viewed as the aggregate of all psychological climates within the relevant unit of analysis. It is defined as an experiential-based, multi-dimensional, and enduring perceptual phenomenon which is widely shared by the members of a given organisational unit (Koy et al., 1991). Various assumptions underlie this definition of the construct.

First of all it is assumed that climate is a function of shared (i.e. collective) perceptions of a number of individuals. This portrayal of climate as a function of *shared* perceptions has resulted in considerable methodological controversy, particularly relating to the meaningful aggregation of climate scores (Schneider et al., 1983; Tustin, 1993). The modern view held is that psychological climate becomes organisational climate as soon as significant consensus on climate perceptions can be established among organisation members.

Organisational climate perceptions are believed to originate from individuals' experiences of structures and processes in the organisation (DeCotiis et al., 1987). These events are then perceived in related sets and serve as a basis from which the individual infers molar perceptions that ultimately provide cues for adapting behaviour to the organisation's needs (James & Jones, 1974; Schneider et al., 1983; Verwey, 1990). Two implications are generally derived from this: (a) numerous climates may be found in one work environment and (b) these climates are attached to referents or criteria, i.e. climate for safety, innovativeness etc. These climates are usually referred to as subunit climates, or collective climates.

Secondly, climate is a multi-dimensional construct. Although some researchers take a holistic view to climate dimensions, others have argued that there may be as many dimensions as there are organisations. Because of its multi-dimensional nature, Glick (1985) warned that the denouncement of the climate construct might lead to one-dimensional approaches.

Thirdly, climate is viewed as an enduring phenomenon (Jackofsky et al., 1988). When individuals agree about descriptions of their climate, this agreement is so powerful as to discount later influences on climate descriptions. Furthermore, climate perceptions are usually represented in



terms of a cognitive map that acts as a perceptual filter (Field et al., 1982). This ultimately influences individual perception and contributes to the stability of climate descriptions.

## 2.3 THE CONCEPTUAL EVOLUTION OF ORGANISATIONAL CLIMATE AS A PSYCHOLOGICAL CONSTRUCT

The development of organisational climate as a construct has been characterised by various conceptual and methodological advances and repeated re-conceptualisations (Schneider et al., 1983; Verwey, 1990). The conceptual evolution of the construct is summarised in Table 2.1.

**Table 2.1: Historical and contemporary conceptualisations of organisational climate**

HISTORICAL VIEW OF CLIMATE	RECENT CONCEPTUALISATIONS OF CLIMATE
Static phenomenon	Dynamic phenomenon
Individual level phenomenon	Multi-level phenomenon
Micro-level phenomenon	Macro-level phenomenon
Objective/ Subjective	Inter-subjective
Psychological	Sociological phenomenon
Dimensional construct	Molar construct
Causal determinant	Predictive variable
Direct determinant of behaviour in a main-effect sense	Indirect determinant of behaviour in an interactive sense
General measurement	Specific / unique measurement
Dependent / independent variable	Inter-dependant variable

South African literature on organisational climate may be broadly divided into two categories, namely those that are conducted in an educational setting, and those that are not. For purposes of clarity the former will be referred to as educational climate studies, while the latter will be referred to as organisational climate studies.



The recognition of the role of individual perceptions in the etiology of climate is considered as one of the more important conceptual advances. James et al. (1974) initially differentiated between three conceptual approaches on the basis of methodology (objective vs. perceptual measurement) as well as unit of theory. The term “unit of theory” (also known as “unit of analysis”) refers to the appropriate level on which a construct should be operationalised. (James, 1982). The three approaches will be discussed in the following section.

### **2.3.1 THE MULTIPLE MEASUREMENT-ORGANISATIONAL ATTRIBUTE APPROACH**

The first approach represents those research efforts that viewed organisational climate as an organisational attribute and attempted to measure it in terms of structural dimensions. These studies generally emphasise the importance of the environment in influencing behaviour and subscribe to the view that situational or environmental measures must be obtained independently of the individual’s perceptions of them. Researchers following this school of thought typically created climates by manipulating organisational conditions.

This view of organisational climate has been epitomized by Foreman and Gilmer’s (1964, p.362) definition of it as

the set of characteristics that describe an organisation and that (a) distinguish the organisation from other organisations, (b) are relatively enduring over time, and (c) influence the behaviour of people in the organisation.

The *Multiple Measurement-Organisational Attribute Approach* has been mostly criticised for being too encompassing and not making any contribution to organisational theory. Such conceptualisations of organisational climate represented for the most part a tautological concept, duplicating other situational characteristics generally referred to as structure, context, and process (Gavin & Howe, 1975). As a result James et al. (1974) suggested that many of the proposed climate factors would be more appropriately considered under other constructs.

### **2.3.2 THE PERCEPTUAL MEASUREMENT-ORGANISATIONAL ATTRIBUTE APPROACH**

The second approach viewed climate as “a situationally determined psychological process in which organisational climate variables were considered to be either causative or moderator factors for



performance and attitudes” (James et al., 1974, p.1100). Organisational climate was thus portrayed as a perceptual measure descriptive of the organisation and distinct from attitudinal, evaluative, and need satisfaction variables. Accordingly, Pritchard and Karasick (1973, p.126) defined organisational climate as follows:

Organisational climate is a relatively enduring quality of an organisation’s internal environment distinguishing it from other organisations; (a) which results from the behaviour and policies of members of organisations, especially top management; (b) which is perceived by members of the organisation; (c) which serves as a basis for interpreting the situation; and (d) acts as a source of pressure for directing activity

The emphasis placed on underlying psychological processes, however, led to some confusion as to whether organisational climate constituted an individual or an organisational attribute. The ensuing debate caused James et al. (1974) to differentiate *organisational* climate from *psychological* climate.

According to James (1982) the above question appears to have been evoked by the concern that perceptions may not reflect objective descriptions of organisational environments. However, such an approach rather oversimplified the matter, as “the question is not whether perception is involved in the measurement process; if humans are involved in the measurement process, then by definition so is perception” (James, 1982; p.220). Moreover, the mere objective of climate measurement, namely to assess the psychological meaning imputed to environments through cognitive processes such as concept formation, called for an “individualistic” approach.

### **2.3.3 THE PERCEPTUAL MEASUREMENT-INDIVIDUAL ATTRIBUTE APPROACH**

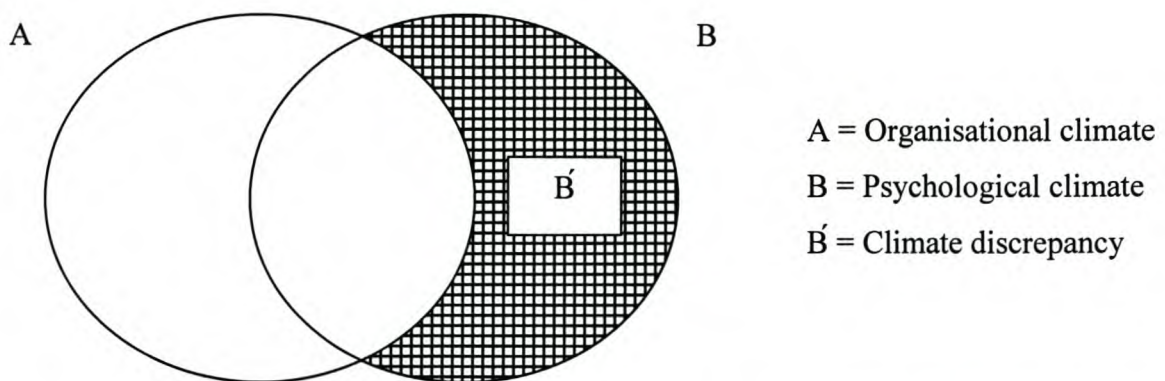
As its name suggests, this approach depicts organisational climate as an individual, rather than an organisational attribute. It is similar to the previous approach, however, in that it views organisational climate as a summary perception or intervening variable based upon the interaction between the individual and the environment. It implies an interaction process between individual and organisational characteristics in which the individual acts as an information processor, using inputs from both organisational and individual characteristics in order to produce a third set of intervening variables. Because psychological climate represents an internal state of the individual, it



is only of importance to the organisation once it becomes externalised in the form of behaviour (Verwey, 1990).

Despite various objectives raised, current researchers seem to subscribe to the latter view of the climate construct (Tustin, 1993). The distinction between *organisational* and *psychological* climate represents a recognition of the multi-level nature of the construct and has gained general acceptance (Drexler, 1977; Gavin et al., 1975; Joyce et al., 1982). Moreover, it suggests that different units of theory may be appropriate for the two constructs (Glick, 1985). Others (Field et al., 1982; Schneider et al., 1983) have supported a third unit of analysis: that of *group, subunit or subsystem climates*. Thus organisational climate has been noted to have evolved from exclusively an organisational attribute to an attribute which may be subsystem specific (Field et al., 1982).

Joyce et al. (1982) pointed out an additional climate concept, namely climate discrepancy. They proposed that psychological climate should be viewed as the primary concept which may be further divided into two parts: (a) organisational climate, which is represented by the average of all individuals' psychological climate, and (b) climate discrepancy. The latter represents the difference between an individual's psychological climate and the average organisational climate. Figure 2.1 delineates the respective constructs:



**Figure 2.1: Organisational climate, psychological climate and climate discrepancy**

According to Joyce et al. (1982) the distinction between psychological and organisational climates suggests an interesting research question, namely: "What are the correlates of the discrepancy between a person's psychological climate and the organisation climate of which he or she is a member?" A similar proposition was made when Gavin et al. (1975) argued that individuals are inclined to form idealised climates, which may in fact deviate from actual climates. Such discrepancies were considered to be of diagnostic value.



Scientific interest in the concept of climate discrepancy reflects an emphasis on the fit between personal and situational variables. It may therefore be argued that climate discrepancy provides an index of the degree to which this person-environment fit has been achieved. It is therefore quite likely that organisational climate discrepancy may embody the outcome of social comparison processes during which the individual compares a given characteristic to a reference point in order to evaluate the characteristics in question.

Despite its potential importance, the topic has received little attention. Joyce et al. (1982) quoted two previous studies conducted in non-industrial settings. The limited findings of these studies implied relations between (a) climate discrepancy and satisfaction, and (b) climate discrepancy and individual job performance. They argued that failure to include climate discrepancy in predictive models may have suppressed relationships between predictors and criteria, or alternatively, by confounding discrepancy and organisational climate within a single summative psychological climate score. They quoted empirical evidence suggesting correlations between climate discrepancy and both satisfaction and individual job performance.

In contrast to the individual-or-organisational analysis of the construct, some authors have proposed an intersubjective approach, where organisational climate is conceptualised as an organisational construct, and consists of a super-individual binding of member's perspectives, beliefs, values, attitudes and performances (Kotzé, 1985). The analysis of climate on an intersubjective level poses two advantages:

(a) "...an intersubjective conception of climate directly addresses the issue previous theories have failed to answer; that is, it gives an account of how individual perspectives are linked into a super-individual climate that has the same force as objective variables."

(b) "...objective and consensual indexes are at best only indirect indicators of intersubjective climates. Therefore, the specific nature of the organisational processes involved may create climates capable of producing contradictions between subjective and objective indexes or even, as we shall see, low levels of consensus. An intersubjective approach promises to conquer the ambiguities and problems of previous conceptions and to present a concept of climate true to both lay and scientific ideas" (Poole & McPhee, 1983).



An intersubjective approach therefore promises to offer a more accurate representation of the nature of climate than a singular organisational or individual approach would (Kotzé, 1985).

Due to the pervasiveness of climate perceptions in its conceptualisation and operationalisation, this aspect will be further discussed.

## 2.4. THE ROLE AND FUNCTION OF CLIMATE PERCEPTIONS

The selection of the individual as unit of analysis is based on the view that “climate involves a set of macro perceptions that reflect how environments are cognitively represented in terms of their psychological meaning and significance to the individual” (James, 1982, p.219). Along this vein, Gavin et al. (1975) viewed psychological climate as an appropriate label for those processes intervening between the objective work environment and individual behaviours and attitudes. Similarly climate has been described as descriptive judgments that arise out of events, processes, and contingencies that exist within settings (Jackofsky et al., 1988). These descriptions are deemed to be relatively stable over time.

Joyce and Slocum (in Field et al., 1982) believed that climate perceptions are determined by a combination of *quasi-physical facts* (psychological interpretation of physical features), *quasi-social facts* (psychological interpretation of social facts), *quasi-conceptual facts* (conceptual representation of problems to be solved and goals to be attained) and *inter-subjectivity* which an individual is aware of. They further argued that organisational climate is a function of the degree to which individuals in groups or organisations perceive their environments in a similar manner.

On the question of why individuals form organisational climate perceptions, Schneider (1975), drawing heavily on Gestalt and Functionalist principles, argued that people develop psychologically meaningful molar perceptions that serve as frames of reference, against which the appropriateness of behaviour may be judged in terms of the homeostasis it may achieve within the given environment. As such, climate perceptions have been thought of as a macro construct that represent abstractions about organisational practices and procedures (i.e. micro features). Considering the various number of perceptual compositions that may be extracted, combined with the many practices and procedures that occur within a given organisation, it follows that multiple sub-climates, with multiple dimensions, may exist within the same organisation (Field et al., 1982).



Another question posed by Schneider et al. (1983) was concerned with how individuals, confronted with a vast array of stimuli in the work environment, come to have relatively homogenous perceptions of those stimuli. Three broad approaches to the etiology of climate was offered as an explanation thereof. They are (a) the structural approach, (b) the selection-attrition-attraction approach and (c) the symbolic interactionist approach.

#### **2.4.1 THE STRUCTURAL APPROACH**

The structural argument holds that organisational climate arises from objective, structural aspects of the work context, and as such should be given preference when considering possible determinants (Schneider et al., 1983). Unfortunately little empirical evidence has been provided to support this assumption. Furthermore, structural variables have failed to explain variance among different work group climates within the same organisation (that are ultimately subject to the same structural influences).

#### **2.4.2 The SAA (SELECTION-ATTRITION-ATTRACTION) APPROACH**

This approach is based on the assumption that organisational processes (e.g. recruitment) and individual processes (e.g. self-selection) combine to produce relatively homogenous membership groups within an organisation, causing members to form similar perceptions due to their individual similarities. Findings by Govender (1998), for example, indicated that formal socialisation processes do in fact contribute to perceptions of a “warmer” organisational climate. This had, however, more to do with the fact that it reduced role conflict and ambiguity, than with creating similar climate perceptions.

Two objections were raised to this approach. Firstly, it is viewed as problematic in that it singularly attributes climate to the psychological traits of organisational members. It therefore implies that climates differ across organisations as a function of the different types of people that become members of those organisations. For instance, in the case of an organisation that has a highly centralised decision-making structure, individuals would be likely to have little perceived autonomy solely on the basis of a psychological trait. A second objection pertains to the approach’s failure to account for variance in subgroup climates.



### **2.4.3 SYMBOLIC INTERACTIONIST APPROACH**

Schneider et al.'s (1983) symbolic interactionist approach offers a more integrative approach to the etiology of organisational climate. Their view has been primarily built on the work of Mead (1934) and predominantly emphasises the importance of intra-individual interaction in the evolution of climate. They have argued that, since meanings arise out of social interactions with others, and because members of the same work group are more likely to interact with each other than with members of other groups, different groups in the organisation will generate different climates or meanings regarding events, practices, and procedures that may be constant throughout the organisation. As a consequence the symbolic interactionist approach should account for differences in work group climates within the same organisation.

In conclusion, the above three approaches have been differentiated on the basis of where they place the locus of meaning. According to the Structural approach meaning is centralised within objective events, practices and procedures, implying that climates differ as a function of the differences in organisational structures. In direct contrast to this, the Selection-Attraction-Attrition approach places meaning within the individual. This view suggests that climates differ across organisations as a function of the different types of people that become members of those organisations. The symbolic interactionist approach places the locus of meanings that arise within the interaction between people. As Schneider et al. (1983, p.34) had noted: "to the extent that this interactionist approach accommodates and modifies parts of both the subjectivist and objectivist points of view on the etiology of climates, the interactionist perspective...represents an integration and an extension of current thinking on the etiology of climates".

### **2.5. ANTECEDENTS OF ORGANISATIONAL CLIMATE**

Organisational climate has been studied in its capacity as a dependant variable (Govender, 1998), an intervening variable (Coetsee & Pottas, 1990; Gavin et al., 1975; Field et al., 1982; Keefe, Kelley & Miller, 1985) as well as an independent variable (Boshoff et al., 1988; Hoy, Tarter & Bliss, 1990; Jackofsky et al., 1988; Roodt, 1992). In order to clarify the organisational climate construct, it is critical that a thorough understanding of its determinants is reached, as the determinants form an integral part of the nomological network (Glick, 1985). The importance of ascertaining a nomological network has been emphasised on numerous occasions (James et al., 1974). Without it, the construct is not justified as a separate component in a organisational model.



Conradie (1990) made a distinction between external and internal determinants of organisational climate. Every organisation functions in an open system, and therefore is subjected to various cultural, economic, political and technological factors. These factors undoubtedly vary in terms of their importance and influence on the organisation.

In an attempt to comply with the requirements of a nomological network, Field et al. (1982) proposed a revised model of organisational climate. A short overview is given of their traditional and revised climate models.

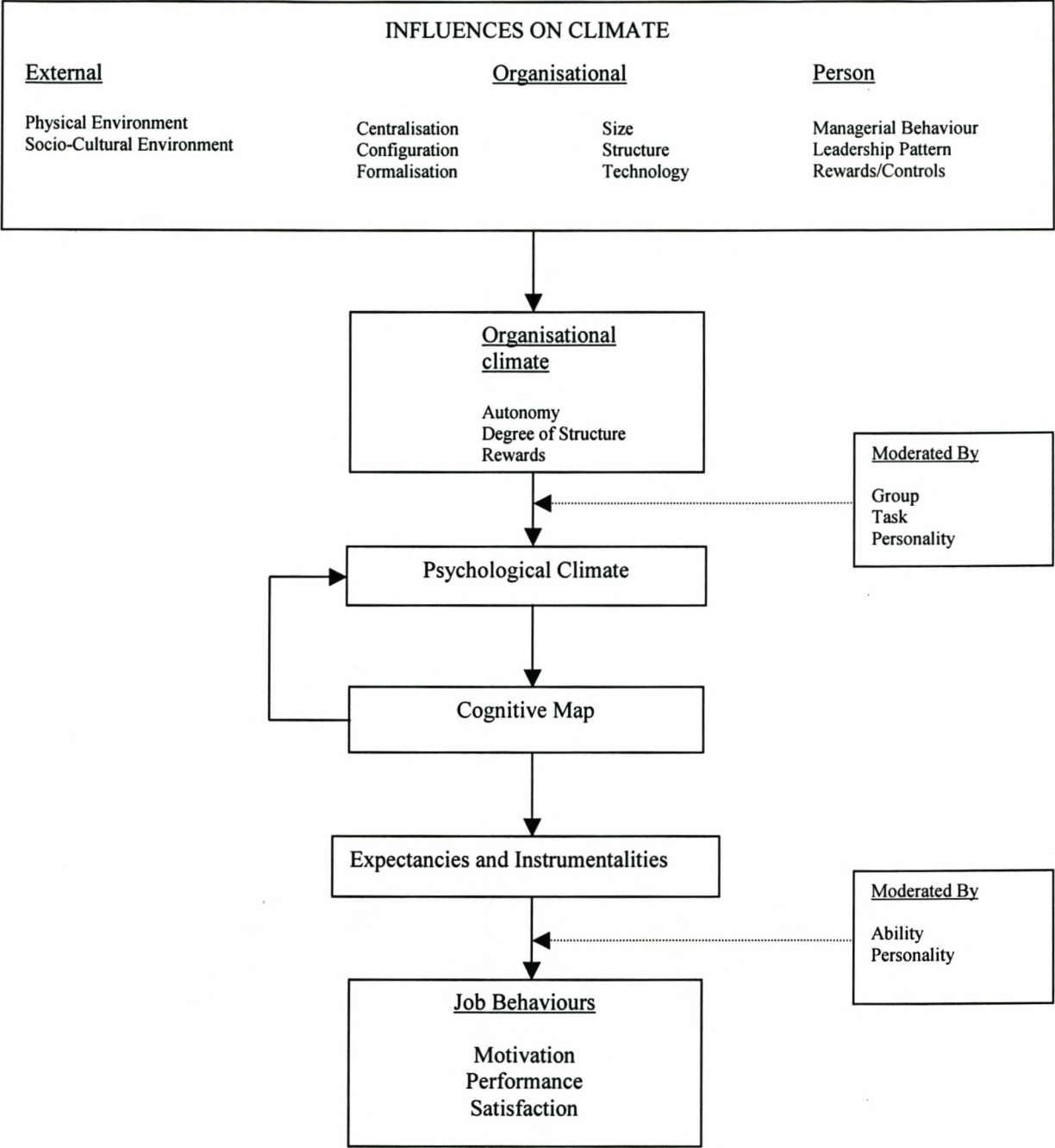
### **2.5.1 A TRADITIONAL MODEL OF ORGANISATIONAL CLIMATE**

Field et al.'s (1982) model represents most of the early theories on organisational climate. Their model displays a strong structural approach and presents the traditional climate conceptualisation with organisational climate portrayed as the central unifying force. Based on conventional wisdom, Field et al. (1982) divided proposed determinants of organisational climate into three categories: external influences, organisational variables and person influences. The first category refers to direct and indirect influences of the physical and the socio-cultural environment. The second includes mostly structural variables, such as size, structure, technology, centralisation, configuration, formalisation and standardisation. Person influences supposedly include managerial behaviour, leadership patterns and rewards / controls (see Figure 2.2).

The model presupposes four generic climate dimensions, that is (a) autonomy / control, (b) degree of structure, (c) rewards and (d) warmth and support. Organisational climate is considered to influence the psychological climate of the individual, yet this influence is moderated by the individual's group, task and personality. A cognitive map is then derived from the individual's psychological climate. This cognitive map acts as a perceptual filter – indicated by the feedback loop – and causes climate to be relatively stable over time.

Once the individual has created a cognitive map, s/he is able to construct expectancies and instrumentalities which will then be related to the individual's job behaviours, including motivation, performance and satisfaction. A further moderation effect exerted by the individual's abilities and personality is noted.





**Figure 2.2:** A traditional climate model (Field et al., 1982, p.183)

### 2.5.2 A REVISED MODEL OF ORGANISATIONAL CLIMATE

The revised model of climate (Figure 2.3), in contrast to its traditional counterpart, focuses on psychological climate as the primary determinant of behaviour. It takes into account interactionistic effects between quasi-facts and intersubjectivity, which, it is argued, determine climate perceptions. In this sense, Field et al. (1982) agrees that organisational climate represents abstract perceptions of individuals within organisations and that multiple climates and dimensions may exist within the same organisation.

The quasi-physical, quasi-social and quasi-conceptual facts perceived by the individual are a function of external, organisational and person variables. The individual's awareness of these realities is moderated by the individual's group membership, task and personality, and combined with intersubjectivity, results in the internal representation of a cognitive map. This process is, however, extremely dynamic and interactive : "although a cognitive map of the climate has been developed through this process, it may change and impact on later psychological climate perceptions. In the least complex situation expectancies and instrumentalities would then be developed solely from psychological climate perceptions" (Field et al., 1982; p195). As a consequence, climate literally defines the stimuli which confront the individual. Once again a moderation effect is observed whereby the individual's abilities and personality influence the link between psychological climate and job behaviours.

According to Field et al. (1982) organisational and group climate occurs once consensus has been reached about the interaction of quasi-facts and intersubjectivity. However, these may be quite different from the individual's psychological climate perceptions. Consequently the revised model allows for the conceptualisation of climate on three different levels and depicts psychological climate as a perceptual phenomenon that occurs within each individual.



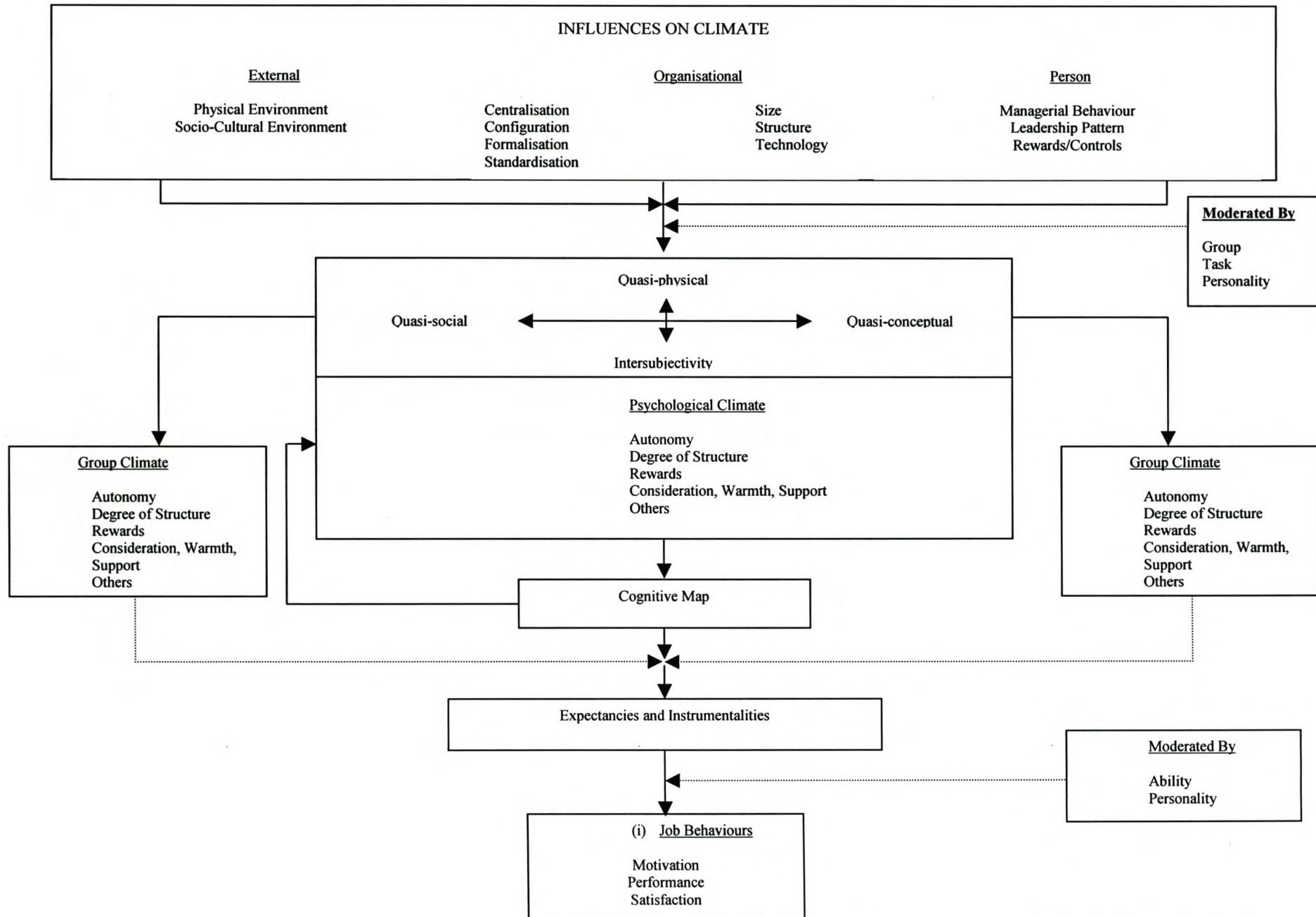


Figure 2.3: A revised climate model (Field et al., 1982, p.195)

### 2.5.3 A SYSTEMS APPROACH TO ORGANISATIONAL CLIMATE

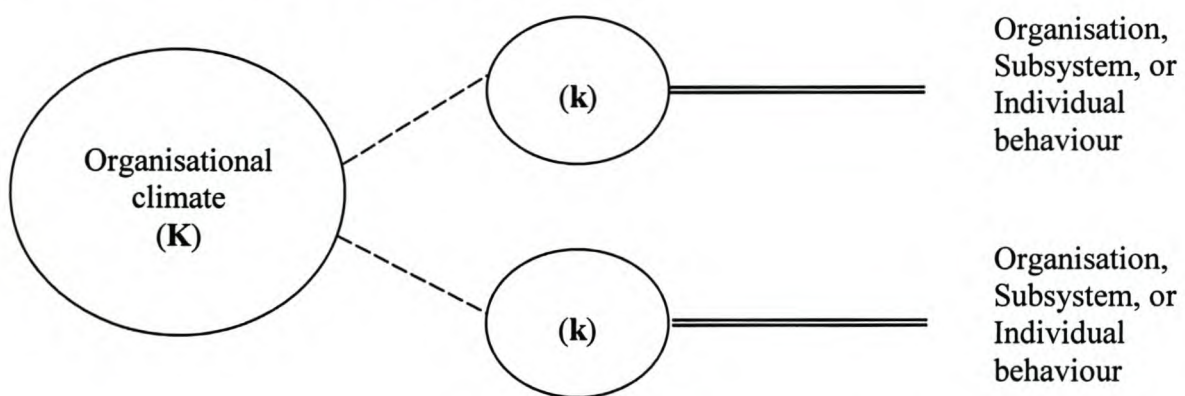
Verwey (1990) argued that the most important theoretical and methodological issue facing climate researchers is a lack of conceptual integration of the climate construct. She consequently offered a social systems approach to the conceptualisation of organisational climate in an attempt to provide such a framework.

According to the systems approach, organisational climate is viewed as the result of perceptions held of the effectiveness of those interaction processes through which organisational structures interact. Climate should not, however, be regarded as the summation of these perceptions. Rather, they should be regarded as the result of unorganised multiplication. Organisational climate is thus represented as follows:

Organisational climate (**K**) = information processing X material and energy processing.

Organisational climate is therefore determined by two sub-constructs (**k**), that is the *communication climate* (i.e. the meaning that is ascribed to the processes whereby information is processed) and the *transposition climate* (i.e. the meaning that is ascribed to the processes whereby material and energy are processed).

The construct is depicted as follows:



**Figure 2.4: A systems approach to climate (Verwey, 1990, p.27)**

The dashed lines indicate the proposed relationship between the organisational climate construct and the two sub-constructs. The double lines represent operational definitions.



The systems approach supports the view of climate as a multi-level phenomenon and a collective construct. Within a systems framework climate manifests as a collective construct at three organisational levels, i.e.

- Organisation-environment (as culture);
- Organisational level (as climate);
- Group level (as sub-system climate).

The level at which climate research is undertaken will determine which structural and functional elements and processes must be analysed. Moreover, aggregate climates scores are deemed appropriate since organisational climate represents a collective construct.

A systems approach further specifies what the determinants of organisational climate are and thus makes it possible to specify a nomological net for climate, qualifying it as a valid construct. Verwey (1990) argues that since organisational climate is generated through interaction, the determinants consist of those sociological and organisational processes that make interaction between structural organisational components at each level possible. Theoretically, processes bind structure to functions, thus climate perceptions are held to be based on a perception of the effectiveness with which this binding occurs, rather than perceptions of the structures themselves. Organisational climate is viewed as effective for a particular organisation if it (a) enables a specific organisation to adapt to its particular environmental demands and (b) if it effectively maintains that organisation's input-transformation and output cycles.

Organisational climate, as it is conceptualised within the systems approach, represents a dynamic entity. This, according to Verwey (1990), implies that climate should be studied as a process. Verwey (1990) further recommends that climate be studied longitudinally in terms of appropriate time sequences.

## **2.6. ORGANISATIONAL CLIMATE VERSUS ORGANISATIONAL CULTURE**

Organisational climate researchers have been specifically interested in the relationship between climate and culture due to the perceived link between the two constructs. The interchangeable use of climate and culture constructs in literature is mainly attributed to the fact that they both represent



a broad class of psychological and organisational variables that reflect the individual's interaction with the organisation, causing them to appear similar (Verwey, 1990). For instance, both organisational culture and organisational climate researchers tend to focus on the level of perceptual agreement, although the latter do not quantify the level of perceptual agreement. Moreover, research on both subjects seems to have been constrained by the "theoretical unit problem". This has threatened the construct validity of these constructs. Verwey (1990) believes that a systems approach to climate will clarify the proposed relationship with culture in that it specifies the nature of the interdependences between these two constructs and thereby explains the conceptual and methodological differences and similarities between these constructs. Others (Van der Walt, 1997) have noted that climate research tends to be nomothetic and quantitative in its description of phenomena that exist at a certain point in time. Culture research is mainly idiographic and uses qualitative methods to describe dynamic processes from both external and participant perspectives. According to Govender (1998) organisational climate is concerned with the way that employees perceive the characteristics of an organisation's culture. Its function is to set the boundaries of behaviour, whereas climate directly influences organisational behaviour. Organisational climate, on the other hand, concerns individuals' perceptions about organisational characteristics, that is anything in the organisation which members interpret or attach meaning to in their attempt to make sense of the organisational environment. On the whole, organisational culture research is believed to add a contextual dimension to field research, while on an empirical level it focuses research on alternative methods of data-gathering, thereby reducing the dependence of organisational climate on self-reports.

## **2.7. ORGANISATIONAL CLIMATE AND JOB SATISFACTION**

The tendency to use perceptual measures for climate has led some authors to suggest that climate may be a redundant concept (Field et al., 1982). Such arguments were mostly based on the hypothesised effect of affect on perception formation.

Schneider (1975) noted that although both job satisfaction and climate concepts reside within the domain of research called "attitudinal research", clear conceptual and logical distinctions should be made. Firstly, organisational climate refers to a molar description of a given situation, whereas satisfaction implies an affective internal state. Differently stated, climate is a perceptual description of the work environment whereas job satisfaction is a person's affective evaluative response to aspects of their job (Field et al., 1982). It was further suggested that basic satisfaction research



orientation was individually oriented as opposed to the more organisationally oriented approach subscribed to by climate researchers. The two constructs should therefore be treated as distinct albeit related constructs.

## **2.8. DIMENSIONS OF ORGANISATIONAL CLIMATE**

There appears to be little agreement on the dimensionality and thus the measurement of climate. According to Glick (1985) and Verwey (1990) the specification of appropriate dimensions of climate remains problematic. Firstly, a huge diversity of climate dimensions has been favoured. In a review of climate literature, Koys et al. (1991) listed more than 80 separately labelled dimensions of climate. Secondly, organisational climate reportedly overlaps with most other organisational variables.

Two approaches to the description of climate have been identified: *Typological approaches* view climate as a integrated configuration of characteristics and often describe climate in terms of holistic labels such as “democratic”, “autocratic” or “achievement-orientated” (Kotzé, 1985; Verwey, 1990).

Studies of educational climate tend to favour the typological approach. According to this school of thought, six different types of climate are generally found in any given organisation (Calitz & Shube, 1991; Smuts, 1996). These types of climate vary to the degree that they are “open” or “closed”. An open climate is synonymous with a healthy climate (Bohmer and Mentz, 1994) and is characterised by healthy relationships, high task-orientations, co-operation and work satisfaction. According to Hoy et al. (1990) open climates are characterised by reality-centred leadership, a committed faculty, and no need for burdensome paperwork, close supervision, or a plethora of rules and regulations. The closed climate is the antithesis of the open climate. Employees working in closed climates generally experience little work satisfaction and are weighed down by bureaucratic red tape. The principal’s ineffective leadership is generally seen as controlling and rigid as well as unsympathetic, unconcerned and unresponsive. Little commitment and poor working relations is exhibited. This approach places much emphasis on the role of management as the architect of climate (Mentz, 1996).



The disadvantage of typological approaches is that they tend to represent a smaller range of climates than dimensional approaches where there are an unlimited variety of climate dimensions. They cannot be reduced to their dimensions because they form an integrated whole.

*Dimensional approaches*, on the other hand, presume that each dimension represents an important, meaningful variable to the individual. Underlying dimensions are thus identified by factor analysis of climate measures. Three types of dimensional approaches have further been differentiated (Verwey, 1990).

The first approach attempts to specify general dimensions that provide a global, general description of climate. Field et al. (1982), for example claimed that certain dimensions (i.e. autonomy/control, structure, recognition and consideration/warmth/support) were generic to all organisations. The second approach tries to identify climates for specific organisational practices, e.g. leadership climate. This approach was derived from the idea that people attach meaning to clusters of psychologically related events and have led researchers to believe that work settings have numerous climates and that these climates are for something, that is a referent should be attached (Schneider et al., 1983). Further examples of this approach include Coetsee's (2002) motivational climate, Zohar's (1980) safety climate, and Schneider and Bartlett's (1970) individual differences climate. The third approach tries to identify climate dimensions that are organisation-specific.

James et al. (1974) recommended the use of an open system model when analysing climate dimensions. Accordingly, measures of climate should reflect both objective and perceptual aspects thereof, which will reflect a more balanced approach to the construct. Others have maintained that the organisation, as a composite of task-, structural, social and technological sub-systems, should serve as a guide when selecting dimensions (Dippenaar et al., 1996). Verwey (1990) has argued that both typological and dimensional approaches can be accommodated within the systems approach to organisational climate. Such an approach will enable researchers to

- specify generic climate dimensions at each organisational level, which can then be used to develop general climate instruments for use in all organisations;
- determine dimensions for specific climates, such as motivational climate;
- translate generic climate dimensions into specific dimensions for each organisation in order to develop unique but valid measurement instruments for each organisation.



The latter approach is considered more appropriate for the following reason: although certain universal organisational processes occur, these processes differ in terms of the manner in which they are manifested. This realisation renders the use of omnibus or global climate measures useless (Verwey, 1990).

## **2.9. THE MEASUREMENT OF ORGANISATIONAL CLIMATE**

The development of a positive climate is considered to be a managerial task (Smuts, 1996). “Unlike the earth’s atmosphere, the atmosphere within a work environment can be controlled. It can be made better, or worse, by the actions of its leaders as well as employees” (Govender, 1998, p. 1). Before climate can be successfully managed, however, it needs to be measured first (Mentz, 1992).

The measurement of climate is important in so far as it creates understanding for individual, group and organisational behaviour, and enables the effective management of such behaviour (Dippenaar et al., 1996). In view of the conceptual crisis that has characterised the construct’s evolution, it is not surprising that various methodological concerns were raised as well.

### **2.9.1 METHODOLOGICAL CONCERNS**

As mentioned earlier, climate has generally been discussed on three different levels of analysis, also known as units of theory. The distinction between individual, group and organisational climate has not, however, “extricated organisational climate research from its conceptual and methodological morass” (Glick, 1985, p.602). One of the most dominant concerns discussed in climate literature, pertains to the common practice of aggregating measures of psychological climate. According to James (1982) the inappropriate uses of aggregate perceptions have resulted in biased estimates of perceptual agreement. When the unit of analysis is inconsistent with the unit of theory, it will necessarily result in misleading inferences being made about psychological climate (Glick, 1985).

The term “unit of theory” implies the appropriate level on which a construct should be operationalised. (James, 1982). Composition theories, on the other hand, specify how a construct operationalised at one level of analysis (e.g. psychological climate) is related to another form of that construct at a different level of analysis (e.g. organisational climate). Composition rules are required whenever a relationship between two or more constructs with different units of theory is observed (Glick, 1985). Although separate content theories are required to define each construct, theorists are



encouraged to extend their content theories by building a nomological net that includes composition rules.

Some have argued that the aggregation of perceptual measures is meaningful only to the extent that inferences are made about an aggregate unit of theory, such as organisational climate. In other words, the unit of theory selected should dictate the units selected for observation. However, the argument that analysis and theory must remain consistent does not imply that organisational climate is unrelated to individual characteristics, or that psychological climate is unrelated to organisational characteristics. It simply means that where the individual is selected as unit of theory, the appropriate unit to select for observation would similarly be the *individual*. Again, as the unit of theory for organisational characteristics such as size, structure, and technology is the organisation, the appropriate unit to select for observation is the *organisation*.

The selection of the individual as unit of theory need not imply that perception measures may not be aggregated and used to describe organisations. There are, however, certain criteria that have to be met (James, 1982). Before aggregating a construct (whose unit of theory is the individual) to represent a macro unit of analysis, one needs to first demonstrate within-group or within-organisation homogeneity, that is perceptual agreement needs to be established. The latter, according to James (1982, p.221), implies “a shared assignment of psychological meaning”. Additionally, one may be required to assess the degree to which organisations can be reliably differentiated based on individuals’ perceptions of climate, and whether the aggregates are meaningfully correlated with other macro level variables.

## **2.9.2 ORGANISATIONAL CLIMATE SCALES**

Any discussion of organisational climate measures would be incomplete without a review of objective as well as subjective measures thereof. Although most researchers emphasise perceptual measures of organisational climate, there seems to be consensus that some discussion of objective measures is needed (Payne & Pugh, 1976; Naidoo, 1993).

Payne et al. (1976) has offered an extensive comparison of objective and subjective measures of the construct. The scope of the present study does not, however, lend itself to such a lengthy discussion. It should suffice to mention that objective measures of climate mostly measures aspects such as



organisational size, levels of authority, formalisation etc. Conradie (1990) paraphrased the following limitations of objective measures:

- Interpretation of objective measures are made difficult due to the fact that such influences are often organisation-specific;
- The number of possible variables are endless and interpretation thereof is limited because of the various interrelations that may exist;
- It is difficult to make meaningful comparisons between organisations as most organisations are idiosyncratic;
- Climate is essentially a function of perceptions and therefore cannot be viewed as an objective reality.

Various perceptual measures have been discussed in the literature. The most predominant ones can be listed as follows:

- Hemphill's Group Dimensions Description Questionnaire;
- Tagiuri's Executive Climate questionnaire;
- Litwin and Stringer's organisational climate questionnaire;
- Halpin and Croft's Climate Scale;
- Inkson and Hickson's measure of perceived structure and roles (in Payne et al., 1976)
- Payne and Pheysey's Business Organisation Climate Index;
- Schneider and Bartlett's Agency Climate Questionnaire;
- Newman's measure of perceived work environment;
- Chait's organisation climate employee survey (in Naidoo, 1993).

It should be noted, however, that the above list is by no means extensive or all-inclusive. Three measures of climate have been selected for further discussion based on their popularity, relevance and previous applications in South African context.

#### **(a) *THE LITWIN AND STRINGER SCALE***

This scale of Litwin et al. (1968) has clearly been favoured in South African climate literature despite much criticism on its psychometric properties. It was developed in an attempt to expose

various motivating effects of differing environments. Litwin et al. (1968, p.1) defined organisational climate as referring to *a set of measurable properties of the work environment, perceived directly or indirectly by the people who live and work in this environment and assumed to influence motivation and behaviour*. The original questionnaire consisted of 50 items and required respondents to evaluate their organisation on a four-point Likert-type scale (definitely agree, inclined to agree, inclined to disagree and definitely disagree). The questionnaire consisted of nine a priori scales that was defined as follows:

*Structure* (8 items) - the perception that employees have about the constraints in the group, how many rules, regulations and/or procedures there are; is there an emphasis on “red tape” and going through channels, or is there a loose and informal atmosphere.

*Reward* (6 items) – the perception of being rewarded for a job well done; emphasising positive rewards rather than punishments, the perceived fairness of the pay and promotion policies.

*Warmth* (5 items) – the perception that generally good fellowship prevails in the work group atmosphere; the emphasis on being well-liked; the prevalence of friendly and informal social groups.

*Support* (5 items) – the perceived helpfulness of the managers and other employees in the group; emphasis on mutual support from above and below.

*Identity* (4 items) – the perception that one belongs to a company and is a valuable member of a working team; the importance placed on this kind of spirit.

*Risk* (5 items) – the sense of risk and challenge in the job and in the organisation; is there an emphasis on taking calculated risks, or is playing it safe the best way to operate.

*Standards* (6 items) – the perceived importance of implicit and explicit goals and performance standards; the emphasis on doing a good job; the challenge represented in personal and group goals.

*Conflict* (4 items) – the perception that managers and other workers want to hear different opinions; the emphasis placed on getting problems out in the open, rather than smoothing them over or ignoring them.



*Responsibility* (7 items) – the perception of being your own boss: not having to double-check all your decisions; when you have a job to do, knowing that you are accountable.

Since its first application, various critical assessments of the instrument have been published (Muchinsky, 1976; Sims & Lafollette, 1975; Rogers, Miles & Biggs, 1980).

Both the Muchinsky (1976) and the Sims et al. (1975) study indicated satisfactory reliabilities for the first five scales (Structure, Reward, Warmth, Support and Identity), and less than satisfactory reliabilities for the remaining scales (Responsibility, Risk, Standards, and Conflict). Moreover, factor-analysis of the questionnaire consistently revealed six underlying factors.

In some rare instances, the questionnaire has been adapted for South African circumstances (Dippenaar et al., 1996). Gelfand (In Dippenaar et al., 1996) applied the questionnaire to a sample of 43 managers. Factor and item analysis revealed four additional dimensions, namely interpersonal functioning, goal direction and communication flow.

The above-mentioned study did have some flaws, however:

- From a methodological viewpoint, the sample chosen was too small to provide reliable and valid factor analysis, given the number of items (50) that were used;
- Of the forty items used (ten were rejected), fifteen loaded on two factors only; and
- The distinction between the 13 dimensions proved to be vague – some overlap could reasonably be suspected on face value.

It was suggested that the four-point scale utilised might have been so coarsely designed as to limit obtained variance. Furthermore, selected items consisted mainly of positively keyed statements, which may have inflated respondent's inclination to agree. Finally, the scale was suspected to be culturally biased.

In response to the above recommendations, Dippenaar et al. (1996) adapted the Litwin and Stringer questionnaire in the following way:

- The scale was adapted from a four-point to a nine-point Likert-type scale.



- Items were re-written as questions in stead of statements.
- Items were arranged arbitrarily in order to prevent second-guessing.

Their findings supported earlier criticisms pertaining to a lack of independence between dimensions, and an exaggerated emphasis on people-related affects. This became evident when factor analysis revealed two dominant factors, respectively labelled *motivation-relationship considerations* ( $\alpha = 0.91$ ) and *task-ownership considerations*. ( $\alpha = 0.73$ ). The former refers to the manner in which an organisation is perceived to be interested in, and look after the well-being of its members, as well as prevailing motivational factors in the organisational environment. The latter delineates the degree to which members (a) fear making mistakes, (b) perceive risk-taking as acceptable in the organisation, and (c) perceive having ownership.

Dippenaar et al. (1996) suggested that dimensions such as *technology* (i.e. equipment, systems and resources needed to perform work), *task-aspects* (inclusive of physical work space, ergonomic design, task characteristics, distractions etc.), *structural aspects* (referring to communication flow...) and *goal aspects* (such as vision, mission and strategic objectives) be incorporated in future research. It may be required to return to the literature in order to identify additional factors.

#### **(b) THE ORGANISATIONAL CLIMATE DESCRIPTION QUESTIONNAIRE – RUTGERS SECONDARY (OCDQ-RS)**

The OCDQ-RS has its origin in the United States, but has since been adapted to suit South African conditions. Due to its popularity within the educational field, this instrument was included in the present discussion.

Originally factor analytical methods had revealed five factors, of which two was descriptive of the principal's management behaviour, and the other three described underlying inter-relationships among personnel (Mentz, 1992). The scale measures the degree of openness of climate by means of 4 point Likert-type items (34). Mentz's (1992) findings supported the factorial stability and construct validity of this scale.



**Table 2.2: Factors of the Organisational Diagnostic Questionnaire**

No	FACTORS AND SUB-FACTORS
1.	<b>ORGANISATIONAL CLIMATE</b> Organisational climate refers to the conditions under which a work group or individual operates. It refers to the employee's positive or negative experiences of his/her work environment. Organisational climate results from the philosophy, policies and actions of senior groups (leaders and managers).
1.1	<b>Decision-making practices</b> Decision-making practices refer to the extent to which employees are involved in or participate in decision-making and the effectiveness of decision-making practices.
1.2	<b>Communication flow</b> Communication flow refers to the quality of information and the effectiveness with which it is transmitted downwards, upwards and laterally through an organisation.
1.3	<b>General motivating conditions</b> General motivating conditions refer to the conditions and reasons (e.g. friendly atmosphere, remuneration system based on employee worth, human relations, attractive working hours) that encourage employees to work hard and improve their performance.
1.4	<b>Quality of work environment, equipment and resources</b> This aspect refers to the quality of, and satisfaction with, resources and equipment used in performing work.
1.5	<b>Goal clarity</b> Goal clarity indicates the extent to which the organisation "knows where it wants to go" (the vision of the organisation) and the extent to which employees are aware of these goals and how work must be carried out.
1.6	<b>Interest in well-being of employees</b> This factor refers to the extent to which the organisation cares for and has an interest in their employees as human beings
1.7	<b>Co-ordination</b> Co-ordination refers to the meaningful organisation of work activities and to the extent to which subsections work together well, plan together and integrate their efforts
1.8	<b>Effectiveness of change management</b> This factor measures the extent to which employees feel and/or understand that organisational change and growth is necessary and constructive, well planned, communicated and effectively managed.
1.9	<b>Labour relations/grievance procedure</b> This relates to the existence of grievance and disciplinary policies, and opportunities to express grievances, its experienced fairness, and employee satisfaction with these.
2	<b>WORK GROUP PROCESSES (team functioning)</b> Work group processes (team functioning) refer to the extent to which members of work groups function effectively and work together as a team, achieve their goals and are satisfied with each other.
2.1	<b>Work group / team task support and goal emphasis</b> Work group / team support refers to the extent to which group members assist and encourage each other in order to perform better and emphasise the team's goals.
2.2	<b>Work group / team skills</b> This factor refers to the extent to which work group members possess the abilities, skills, training and knowledge in order to carry out their work effectively.



**Table 2.2: (continued): Factors of the Organisational Diagnostic Questionnaire**

No	FACTORS AND SUB-FACTORS
2.3	<b>Work group / team cohesion and openness</b> These factors refer to the activities in a work group or team directed at encouraging members to participate in work activities and decisions, encouraging employees to feel part of the group and work together as a team. It also refers to the extent to which the group is free from forces that tend to pull it apart and the extent to which mutual trust exists in the group.
2.4	<b>Work group / team goals and performance</b> This refers to the extent to which work group members know what the team's goals are that they must strive for, what is expected of them and whether they maintain high work standards and are able to respond effectively to unusual work demands.
2.5	<b>Satisfaction with work group / team</b> Satisfaction with work group refers to the way in which an individual is treated by members of her / his work group, the respect s/he is shown by them and how satisfied s/he is with her/his colleagues.
3	<b>TASK CHARACTERISTICS</b> Task characteristics refer to the inherent characteristics of a job. These inherent characteristics pertain to the motivation and job satisfaction of employees.
3.1	<b>Job challenge and meaningfulness</b> This refers to the opportunities given to incumbents in their jobs to utilise their abilities and skills; the challenges and variety offered by a job; and the extent to which the work is perceived as being important and meaningful.
3.2	<b>Decision-making freedom</b> This refers to the degree of freedom individuals enjoy in their work with respect to decisions about how they will do their work, the pace at which they will work and whether they regard their work load as fair.
3.3	<b>Skills effectiveness</b> Skills effectiveness refers to the extent to which the individual possess the necessary knowledge, skills, abilities and training to do the work effectively.
3.4	<b>Importance of work results / outputs</b> This refers to the visibility of results and perceived importance of the work, the output thereof and the opportunities the job offers the person to make progress and to make a significant contribution to something the person regards as important.
3.5	<b>Job satisfaction</b> Job satisfaction Job satisfaction refers to the extent to which people experience personal involvement in their work, the extent to which they enjoy their jobs and the opportunity they have to do things in their work which give them a feeling of personal satisfaction.
4	<b>SUPERVISORY LEADERSHIP</b> Supervisory leadership refers to the behaviour of a leader, manager or supervisor which may help or hinder the efforts of individual group members or the group as a whole in accomplishing their tasks, as well as perceptions about the effectiveness of the supervisor.
4.1	<b>Supervisory production orientation</b> This factor refers to the extent to which the supervisor stresses work-related goals and its achievement. (This might sometimes be over-emphasised at the cost of a more human orientation).
4.2	<b>Supervisory people-orientation</b> Supervisory people-orientation refers to the supervisor's concern for his subordinates as people and the extent to which his behaviour towards them is fair and characterised by sensitivity. It also reflects the confidence and trust he has in them and whether he enjoys the respect, confidence and trust of his subordinates. (This might sometimes be over-emphasised at the cost of production-orientation).
4.3	<b>Supervisory team-building</b> Supervisory team-building refers to the supervisory activities that encourage members to develop mutually satisfying relationships and to work together as a team.



**Table 2.2: (continued) Factors of the Organisational Diagnostic Questionnaire**

<b>No</b>	<b>FACTORS AND SUB-FACTORS</b>
4.4	<b>Supervisory work facilitation (mentoring)</b> This refers to the nature and quality of assistance guidance and support that a supervisor gives subordinates to carry out their work effectively.
4.5	<b>Supervisory effectiveness</b> Supervisory effectiveness refers to how well a supervisor handles the “human”, “production”, and “administrative” sides of his/her job and how effective subordinates perceive him/her to be.
5	<b>SATISFACTION OUTPUTS</b> Article I. Satisfaction outputs refer to job satisfaction, satisfaction with remuneration and the administration thereof, as well as the extent to which work-related stress is experienced.
5.1	<b>Organisational attachment</b> Organisational attachment refers to the degree to which employees feel committed (bound) to the organisation. The closer the bond, the less inclined the employee will be to resign and vice versa.
5.2	<b>Satisfaction with salary administration</b> This refers to the satisfaction or dissatisfaction with the way in which the organisation administers salaries.
5.3	<b>Pay satisfaction</b> This refers to the importance the organisation attaches to factors such as training, experience, work responsibility, quality of work carried out, productivity and effort when determining employees’ remuneration.
5.4	<b>Pay equity</b> This refers to the employees’ perceptions of the equity of their remuneration compared to that of others, the work they do, the skills and effort their work requires, and the resulting satisfaction with their remuneration.
5.5	<b>Work-related stress</b> Work-related stress refers to the negative results of work and particularly the tension and frustration an individual experiences at work. This pertains to both the physical and psychological effects.
6	<b>ALIGNED COMMITMENT</b> This factor measures the extent to which employees are focussed on a shared vision, the same goals and driven by an identical value system (alignment) and the extent to which they are committed to the goals and values. Aligned commitment is considered a product of knowledge, information, empowerment, rewards and recognition and shared vision.

**(c) THE ORGANISATIONAL DIAGNOSTIC QUESTIONNAIRE (ODQ-02)**

This measure of climate, developed by Coetsee (1986), has been most widely used in South African context for the measurement of organisational behaviour and functioning. Known as the Organisational Diagnostic Questionnaire (ODQ), it has been applied and re-applied in more than 300 South African organisations over a period of nearly three decades.

The ODQ was initially developed as a diagnostic measure of factors important to the effective functioning of organisations. Based on an adapted version of Nadler and Tushman’s (1977) Congruence model, it measures individual, group and managerial behaviour in terms of five factors



(of which climate is one) and 27 sub-factors. Numerical units 1 to 5 refer to the main factors of the model as operationalised by the ODQ.

This questionnaire was recently updated and validated within a mining environment. The updated version (Coetsee, 2002) includes an additional factor, i.e. organisational commitment. The various factors are summarised in Table 2.3.

The following reliability coefficients have been reported:

**Table 2.3: Kuder-Richardson Formula 20 for the ODQ**

FACTOR		CRONBACH ALPHA
I	Organisational climate	0.810
II	Work group processes	0.818
III	Task characteristics	0.774
IV	Management/leadership	0.850
V	Satisfaction outputs	0.853
VI	Aligned commitment	0.687

## 2.10. CONCLUSION

In the discussion presented above, an outline was given of the various conceptualisations of and approaches to organisational climate. A discussion of the evolution of the climate construct followed, in which various conceptual advances were mentioned. Finally, the dimensions, determinants and measurement of climate were discussed.

Despite the complexity of the construct, organisational climate remains important and relevant to the modern organisation. Some have argued that it is mainly because of its complexity that it adds value to predictive models of organisational behaviour. There is no doubt that oversight of this construct will result in questionable and/or useless research results, not to mention one-dimensional theories and models.



## **CHAPTER THREE**

### **ORGANISATIONAL COMMITMENT**

#### **3.1. INTRODUCTION**

The present chapter aims to provide an overview of literature pertaining to organisational commitment and turnover intentions. Firstly the various approaches to organisational commitment are delineated. Thereafter the different dimensions of organisational commitment, as proposed in the literature, are discussed. An integration of the various approaches is offered, after which the antecedents and measurement of organisational commitment is afforded some attention.

#### **3.2 CONSEQUENCES OF ORGANISATIONAL COMMITMENT**

The construct of organisational commitment has traditionally been portrayed as one that results in positive behavioural consequences. As such it has been a phenomenon of interest to organisational researchers as well as practitioners (Watson & Papamarcos, 2002). Much of the attention that it has received has been directed towards identifying the consequences of having committed employees (Caldwell, Chatman & O'Reilly, 1990). For instance, high levels of organisational commitment have been believed to be associated with low turnover, limited tardiness, low absenteeism, and enhanced job performance (Mowday, Steers, & Porter, 1979). Others have linked it to motivation, expressions of positive affect and loyalty, and prosocial behaviour (Becker & Billings, 1993). Some researchers suggested that highly committed employees perform better than less committed ones and that the construct should be regarded as a useful indicator of organisational effectiveness (Lin & Hsieh, 2002). Coetsee (1999) believed organisational commitment to be especially relevant in the context of change management and industrial relations. This notion was supported by Shadur, Kienzle and Rodwell (1999) who found that organisational commitment is positively related to decision making, teamwork and communication. Cook and Wall (1980) regarded organisational commitment as a factor contributing to subjective well-being at work.

Maitland (2002) refers to a concept of “allegiance”, that is the degree to which employees are proud to be associated with the organisation, and to which they feel it is highly regarded by its employees, customers, competitors and the general public. It seems that high allegiance not only promotes retention of staff, but motivates employees to encourage others to join.



Decades of empirical research on organisational commitment have mostly succeeded in exposing weak and inconsistent relationships with hypothesised outcomes. Although such weak attitude-behaviour relationships are not atypical in the history of organisational behaviour research, it has raised questions about the scientific foundation upon which the importance of the commitment construct as a research topic rests (Randall, 1990).

One of the explanations given for the empirical inconsistency in the organisational commitment-work outcome literature has been a general failure to take into consideration the multidimensional nature of the commitment construct, together with improper specification of outcome variables (Randall, Fedor and Longenecker, 1990). This possibility was strongly suggested by the results of a meta-analysis conducted by Randall (1990) in which 35 studies of the link between organisational commitment and various work outcomes were analysed. According to these results, the variation in reported correlation coefficients was clearly a function of researchers' conceptual approach to commitment. As could be reasonably expected, the strength of the commitment-work outcome link also varied by the type of work outcome that was studied. It was found that *effort*, *good time-keeping* and *employee-retention* demonstrated the strongest correlation with commitment levels. Randall (1990) concluded that advances in understanding organisational commitment-work outcome relationships were only likely to be made if researchers developed a closer understanding of participant's expressions of commitment, how they understood it, and how the meanings attached to commitment varied across different professions and work groups. It was further suggested that commitment-outcome links may vary as a result of differential strengths of commitment dimensions (Allen & Meyer, 1990).

Wiener (1982) remarked that early models of commitment generally failed to satisfy three important criteria. These are (a) definitional precision, (b) theoretical integration with other relevant constructs, and (c) predictive power. Thus the need for a more coherent, comprehensive and systematic conceptualisation became apparent.

### **3.3. APPROACHES TO THE CONCEPTUALISATION OF ORGANISATIONAL COMMITMENT**

As is the case with many constructs in the field of Organisational Psychology, little consensus has been reached on the conceptualisation and operationalisation of organisational commitment. The variety of approaches to the conceptualisation of organisational commitment has respectively become so well established, however, that it became unlikely that any one approach would



dominate and be unanimously accepted as the correct definition of commitment (Meyer, Allen & Gellatly, 1990a). Rather, it has necessitated the identification of the various approaches, the differentiation of their differences, and the establishment of their differential links to other variables of interest (Meyer et al., 1990a).

Early attempts to conceptualise commitment have been categorised in two main approaches, namely that of behavioural and attitudinal commitment (Kamfer, Venter & Boshoff, 1994; Rossouw, 1988). Rossouw (1988) assumed a Typological approach towards commitment, while Van der Walt (1997) differentiated between a Typological and a Foci-of-commitment approach. Allen et al. (1990) clarified the differences between the various conceptualisations of commitment as follows: they argued that the variety of approaches towards organisational commitment could be differentiated in terms of the emphasis that each placed on (a) the psychological state reflected in commitment, (b) the antecedent conditions leading to its development, and (c) the behaviours that are expected to result from commitment. Their approach has laid the foundation for the multi-dimensional, multi-foci approach that dominates current research.

### **3.3.1 THE BEHAVIOURAL APPROACH**

The behavioural perspective, as delineated by Salancik (1977), portrays commitment in terms of a “behavioural loop”. According to this approach organisational commitment is defined as a state of being in which an individual feels obliged to behave in a certain manner, and as a result of this process reinforces those beliefs that sustain his/her behaviour and involvement (DeCotiis et al., 1987). The behavioural perspective employs the concept of personal investment to explain continued organisational membership – thus organisational commitment is portrayed as a type of force that inevitably directs individual behaviour.

The degree to which an employee will be bound to his behaviour is determined by (a) the visibility, (b) the irreversibility, and (c) the wilful expression of his/her behaviour (Rossouw, 1988). As such, the behavioural perspective relies on the concept of personal investment, and commitment behaviour is characterised by its tendency to transcend normative organisational expectations.

DeCotiis et al. (1987, p.446) conversely noted that “while it is intuitively appealing to view extraordinary behaviour as commitment behaviour, it is difficult to distinguish such behaviour from its other sources such as an effective reward system, lack of opportunity for alternative employment, and so forth”.



### 3.3.2 THE ATTITUDINAL OR AFFECTIVE APPROACH

The attitudinal approach has assumed as its basis the psychological contract between the employee and the organisation, in that the organisation expects employees to display certain values and objectives in return for certain rewards (Rossouw, 1988). This notion of exchange seems to be a central theme in conceptual work on organisational commitment (Mottaz, 1989). Accordingly, individuals enter organisations with specific skills, desires, and objectives, and expect a work environment where they can apply their skills, achieve their objectives, and fulfil their needs. The degree of organisational commitment is therefore a function of the extent to which these needs are facilitated by the organisation.

Recent findings by Lester and Kickul (2001) indicated that organisations find it difficult to fulfil those components of the psychological contract that their employees value most. Discrepancies between perceived importance (of these components) and perceived fulfilment directly influence employee satisfaction, performance and intention to leave the organisation. Generally psychological contracts have been found to be multidimensional in nature, with some contract components focusing on intrinsic outcomes, while others emphasise extrinsic outcomes. Research has shown that employees view the socio-emotional components of the psychological contract as more important (Shore and Barksdale in Lester et al., 2001).

Becker's (1960) side-bet theory was one of the theories initially classified under the behavioural approach. This classification was based on Becker's (1960) definition of commitment as *the tendency to persist in a course of action*. Allen et al. (1990) however, pointed out that Becker (1960) specifically emphasised the importance of recognising the costs associated with discontinuing a given action, thus implying a psychological state that reflects the employee's relationship with the organisation. Based on this emphasis, Becker's (1960) side-bet theory was reclassified as an attitudinal approach to organisational commitment.

According to Werbel et al. (1984) organisational commitment concerns psychological attachments to the organisation that reduces the likelihood of employees leaving the organisation. Goal and value agreement, behavioural investments in the organisation and a desire to retain organisational membership are all considered to be facets that forge these psychological attachments. It is further believed that the stronger these attachments are, the greater the reluctance will be to leave the organisation. Cook et al. (1980) regarded organisational commitment as a person's affective



reactions to the characteristics of a given organisation, as opposed to attachment to the organisation for its instrumental value.

The attitudinal perspective, however, has not been free of criticism (Rossouw, 1989). Due to the fact that attitudinal conceptualisations primarily take the organisation's perspective, the possibility has been raised that some of the psychological processes central to the individual's own perceptions may have been ignored. In addition a case was made that some aspects of attitudinal commitment should be treated in their own right, such as the employee's identification with organisational objectives and his/her need to retain membership. Finally, concerns have been raised that verbal expressions of attitudinal commitment may not necessarily lead to the behavioural manifestations thereof.

Most researchers have settled the Behavioural versus Attitudinal debate by either siding with the attitudinal approach, or by combining the two in the form of a multi-dimensional approach. Bateman et al. (1984), on the other hand, distinguished psychological commitment from exchange commitment and proposed that they be studied simultaneously.

DeCotiis et al. (1987) explicated four commonly applied characteristics of a committed individual, namely: (a) internalisation of the goals and values of the organisation, (b) involvement in an organisational role in the context of these goals and values, (c) desire to remain in the organisation over an extended period of time in order to serve its goals and values, and (d) a willingness to exert effort in the interest of the organisation's goals and values apart from the instrumentality of this effort for the attainment of the individual's goals. It has since been pointed out that *intent to quit* and *willingness to exert effort* are more appropriately viewed as correlates of organisational commitment, as opposed to aspects thereof.

A few other approaches will be discussed shortly.

### 3.3.3 A NORMATIVE-INSTRUMENTAL APPROACH

Wiener (1982) viewed organisational commitment as a motivational phenomenon and defined it as *the totality of internalised normative pressures to act in a way that meets organisational goals and interests*. This conceptualisation is based on the assumption that work behaviour may be determined not only by calculative-instrumental processes, but also by normative influences such as personal moral standards. The definition was thus formulated within a normative-instrumental framework



that, according to Wiener (1982), distinguishes between normative and instrumental processes as determinants of human behaviour. It should be noted that the interpretation of the term “instrumental” as it is used here, leans more towards an affective than a calculative approach.

At the core of Wiener’s (1982) framework lies an adapted version of a model that was initially proposed by Fishbein (1967;1975) (Figure 3). According to the model, an individual’s behaviour is determined by his/her intention to perform that behaviour. This behavioural intention, in turn, is a function of two elements, namely (a) the individual’s attitude toward performing a given act, i.e. his/her evaluation of or affect with respect to the act, and (b) his/her subjective norm or perception of the totality of the normative pressures concerning the behaviour. Wiener (1982) has summarised the model in terms of a multiple regression equation in which *attitude* and *subjective norms* are seen as the two predictors, with behavioural intentions as the criterion.

The first element is referred to as instrumental motivation and is largely influenced by the individual’s instrumental-cognitive beliefs, i.e. those beliefs concerning possible consequences of behaviour and the values attached to them. The second element is determined by social-normative beliefs, i.e. the individual’s beliefs about what significant others might think s/he should do. The latter is central to Wiener’s (1982) definition of commitment and will be discussed in more detail.

It has been argued in the past that the subjective norm is not only a function of an individual’s beliefs about how others might expect him/her to behave, but also of personal moral standards. These personal moral standards are developed through a process during which expectations of significant others are internalised. Wiener (1982, p421) put it as follows: “when behavioural acts are guided by such internalised normative pressures, they are no longer dependent on their linkage with the reinforcements and punishments on which they were initially based” and “committed individuals may exhibit certain behaviours not because they have figured that doing so is to their personal benefit, but because they believe that it is the ‘right’ and ‘moral’ thing to do”. Thus the distinction between normative and instrumental commitment is clarified.

Three requirements for behaviour resulting from commitment were identified by Wiener (1982). Firstly, it should reflect personal sacrifices made for the sake of the organisation. Secondly, it should show persistence and should not depend primarily on environmental controls such as reinforcements or punishments. Thirdly, it should indicate a personal preoccupation with the organisation. Thus commitment may be inferred whenever an individual chooses to remain with an



organisation in spite of the availability of better opportunities elsewhere. Long tenure is therefore a required, but insufficient indicator of commitment.

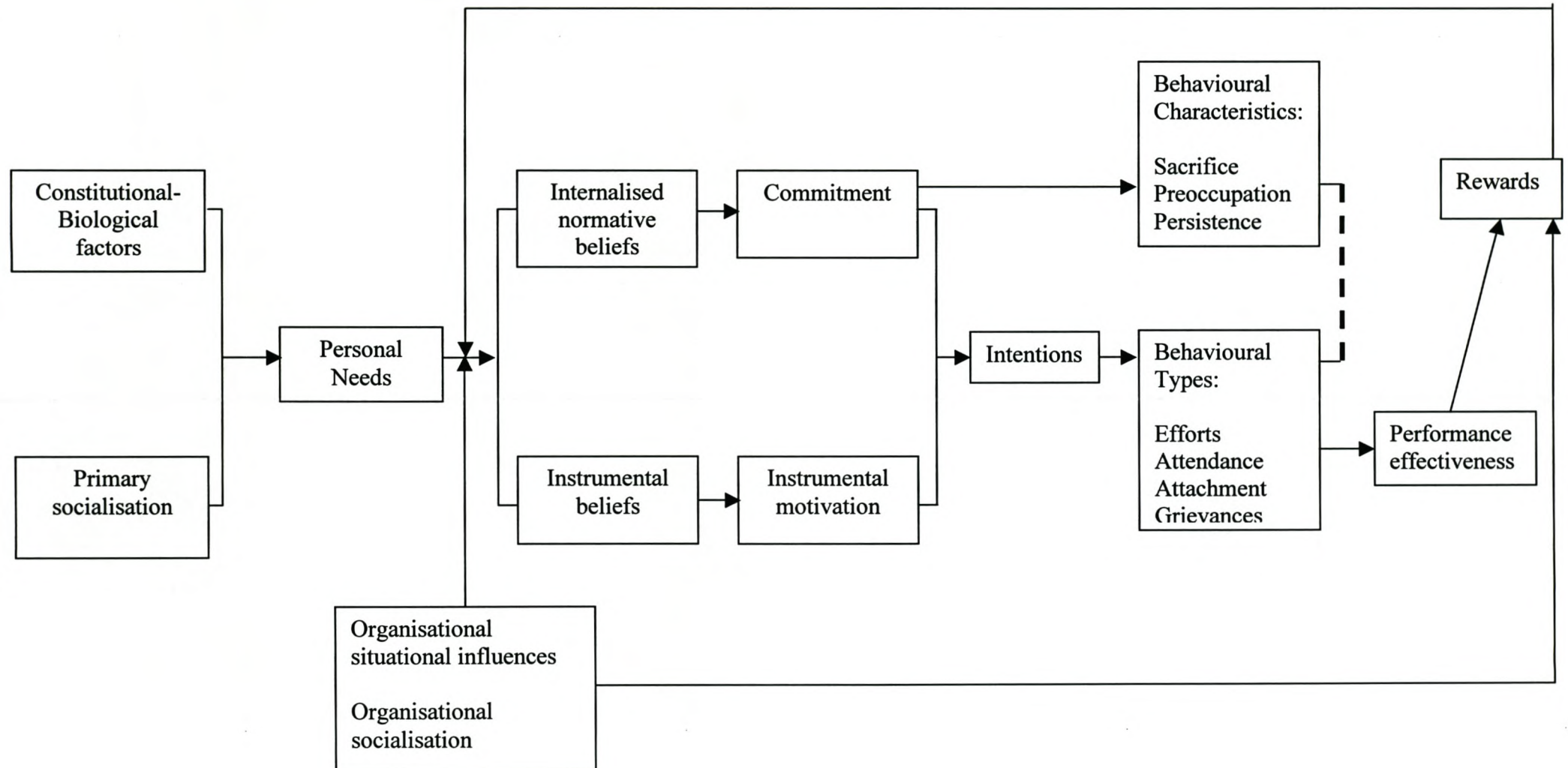
In conclusion, Wiener's (1982) adapted model presents organisational commitment as a unique construct within a comprehensive motivational-attitudinal system, distinguishing it from processes such as instrumental motivation and job satisfaction. The inclusion of the normative component, it is claimed, should improve the predictability of organisational behaviour.

### **3.3.4 COMMITMENT PROFILES (COMMITMENT AS A MULTI-BASED, MULTI-FOCI PHENOMENON)**

It has already been stated that organisational commitment represents a certain level of attachment to the organisation. Some researchers have identified various levels of attachment, such as O'Reilly and Chatman (1986), who have distinguished between compliance, identification and internalisation.

*Compliance* typically occurs whenever attitudes and behaviours are adopted in order to obtain specific rewards or to avoid certain specific punishment. This is similar to a psychological contract. *Identification* occurs when attitudes and behaviours are adopted in order to be associated with a satisfying self-defining relationship with another person or group. *Internalisation* occurs when attitudes and behaviours are adopted because the content of the attitude or behaviour is congruent with the individual's value system.

Presumably the latter base of commitment represents a stronger psychological attachment to the organisation. It may therefore be argued that these bases of commitment suggest different "levels" of commitment, implying that (a) a continuum of organisational commitment levels might be established; and (b) various individuals may display different levels of commitment to different foci of commitment. A further possibility that has not been explored yet pertains to the composition of various dimensions that each level may represent. It is clear that the organisational commitment concept may be much more complex than was earlier believed.



**Figure 3.1: A Normative-Instrumental Framework of Organisational Commitment (Wiener, 1982, p.420)**



In a similar fashion, Buchanan (in Cook et al., 1980) distinguished 3 components of commitment:

- Identification (pride in the organisation; the internalisation of the organisation's goals and values);
- Involvement (psychological absorption in the activities of one's role); and
- Loyalty (affection for and attachment to the organisation; a sense of belongingness manifesting as "a wish to stay").

O'Reilly et al.'s (1986) various levels of attachment, also referred to as bases of commitment, prompted Becker et al. (1993) to delineate various commitment profiles. The notion of commitment profiles was first suggested by Allen et al. (1990), who felt that it was equally important to differentiate employees who are likely to remain with the organisation *and* contribute positively to its effectiveness, from employees who are likely to remain, but contribute less. The ability to discern various commitment profiles, it was argued, would enable one to isolate the degree to which particular commitment types were present or absent. In addition, the results would be valuable in examining possible antecedents and/ or correlates of commitment. It was further argued that the general failure to distinguish among different commitment profiles may have aggravated the controversy surrounding the commitment-performance relationship.

Similarly, the focus of commitment (i.e. the "object" of commitment) is an important dimension of commitment (Becker et al., 1993). This view is in par with that of Reicher (1985), who suggested that individuals may be committed to multiple groups within the organisation, rather than to the organisation itself. Per example, the following foci of commitment have been quoted in the literature:

- Co-workers, superiors, subordinates, customers, and other groups and individuals that collectively comprise the organisation (Reichers in Becker et al., 1993);
- Job involvement, occupational/professional commitment, career commitment, union commitment, central life interest, Protestant work ethic, organisational commitment tendency and community involvement (Roodt, 1997);
- Unions (Fukami & Larson, 1984).

Becker et al. (1993) found that when various foci and bases of commitment were taken into account, different commitment profiles manifested that explained variance in job satisfaction, intent to quit and prosocial organisational behaviour, above and beyond variance accounted for by Porter,



Steers and Lawler's (1986) Organisational Commitment Questionnaire. Their finding supported the re-conceptualisation of commitment as a *multi-focus, multi-basis phenomenon* (Becker et al., 1993).

The following profiles were suggested:

- The Locally Committed – i.e. employees who are attached to their supervisor and work group;
- The globally committed – i.e. employees who are attached to top management and the organisation;
- The committed – employees who are attached to both local and global foci; and
- The uncommitted – employees who are attached to neither local nor global foci.

More recently two further conceptual approaches towards organisational commitment have been developed. They are the Cognitive approach to organisational commitment (Roodt, 1997), and the Systems Model approach to aligned commitment (Coetsee, 2002). Due to the fact that these approaches have not been as widely discussed in the literature, they will be discussed in more detail.

### **3.3.5 COMMITMENT AS A COGNITIVE PREDISPOSITION**

Roodt (1992) observed that the diverse array of conceptualisations found in the literature, together with conflicting operationalisations of organisational commitment, was symptomatic of a lack of reason in the approach generally followed towards the study of the concept. Concerns were also raised in terms of concept redundancy and a general lack of precision – a concern shared by others (Kamfer et al., 1994; Morrow, Eastman & McElroy, 1991).

Roodt (1992) derived his cognitive approach from the notion that individuals derive modal perceptions from their experiences of both structural and process variables in the organisation, which in turn serve as cues for adapting behaviour. This notion led DeCotiis et al. (1987) to investigate the possibility of organisational climate as a predictor of organisational commitment – a relationship that was believed would increase parsimony in predictor models. As a result of these perceptions, congruence between organisational and individual objectives become more likely, which supposedly increases the likelihood of role involvement Roodt (1992) argued that the



formation of modal perceptions was a cognitive function and thus raised the possibility of conceptualising commitment as a cognitive predisposition towards the organisation.

From a cognitive perspective, organisational commitment is thus defined as an individual's general state of beliefs and indicates the organisation's potential to fulfil the individual's salient needs and expectancies. Consequently, organisational commitment will be high if the organisation's values and objectives are perceived to be instrumental in the realisation of members' own values and objectives. This supposedly results in identification with the organisation.

Roodt (1992; 1997) further suggested that the conceptualisation of commitment in terms of a cognitive predisposition would open new possibilities in the definition and operationalisation thereof. This would be beneficial in terms of enhanced construct validity, which in turn would produce clearer relationship patterns with other work-related variables. Once again the exchange relationship between the employee and his/her employer is emphasised.

### **3.3.6 ALIGNED COMMITMENT AS A PROCESS THEORY OF MOTIVATION**

This approach, also referred to as a system's approach, was originally advocated by Coetsee (1996). It is considered to be especially useful in that it aids comprehension of the nature, dynamics and role of the above aspects (van der Walt, 1997). This has been achieved by an emphasis on the interaction that takes place between various, complex determinants of commitment (Figure 3.2). Van der Walt (1997) claims that previous approaches to organisational commitment, such as the Typological and the Foci-of-commitment approach, has failed to provide a satisfactory analysis of the commitment concept. It appears that these approaches have mostly failed to provide clarity on the essential characteristics of commitment, the structure of specific elements as they fit together, and the processes through which commitment are facilitated. Neither have they fully addressed issues such as the need for and function of organisational commitment.

In this model effective management-leadership, a shared value system and sound work ethics are portrayed as prerequisites (inputs) of a motivational climate. The extent to which an organisation has a motivating climate may thus be determined by the extent to which employees and managers are aligned with and committed to goals, perform well and experience job satisfaction.



According to Coetsee (2002), aligned-commitment represents a new process theory of motivation as it involves goal-directed behaviour, sustained effort and achievement. This view is in par with current shifts in focus from motivation as a method of control to motivation as a determinant of job satisfaction. More recently the focus has been expanded to include organisational commitment (Kinnear et al., 2000).

Two important elements of this conceptualisation need to be emphasised: the existence of various levels of commitment and the commitment formula.

#### **(a) LEVELS OF COMMITMENT AND RESISTANCE**

Aligned-commitment is defined as the opposite of resistance to change. Commitment and resistance therefore represent two extremes on a continuum (Table 3.1). The conceptualisation of commitment in terms of a commitment-resistance continuum aids in forming an understanding of the nature, dynamics and roles of various factors in organisational change (Van der Walt, 1997). Table 3.1 provides an outline of the various levels of commitment that may be present in an organisation.

Coetsee (2002) views commitment as more than mere involvement. In stead, it incorporates a strong affective component that underlies identification with and co-ownership of the organisation. This last stage signifies the realisation of aligned-commitment.

In the same way differing levels of resistance (to change) may manifest themselves. Coetsee (2002) differentiates between passive, active and aggressive resistance. Apathy represents a situation where employees' perceptions and attitudes are neutral towards a given commitment foci, such as change. Apathetic behaviour is normally characterised by resignation. This level of commitment represents the transition phase between rejection and acceptance.

Coetsee (1999) further distinguishes between two intermediate levels of resistance, namely *passive resistance* and *active resistance*. The former manifests in the form of negative perceptions and attitudes, often expressed by voicing opposing views, threats to quit and voicing other indications of rejection to change. The latter is expressed by means of strong, but not destructive, opposing behaviour such as withdrawal, slowing activities down, working to rule, industrial action etc. Aggressive resistance usually include behaviours such as the pro-active spreading of rumours, overt blocking behaviour, violent industrial action, direct subversion and sabotage.



From the above it follows that successful change management programs need to include both the management of commitment and resistance levels (Van der Walt, 1997). Coetsee's (2002) conceptualisation of commitment implies that various levels of commitment may be present in different departments, subgroups, or even individuals.

**(b) *THE COMMITMENT FORMULA***

The above notion is illustrated clearly by means of a multiplicative formula. The formula was derived from a formula initially proposed by Lawler (1992), who portrayed involvement as the congruence between four elements:

$$\text{Involvement} = \text{Information} \times \text{Knowledge} \times \text{Power} \times \text{Rewards.}$$

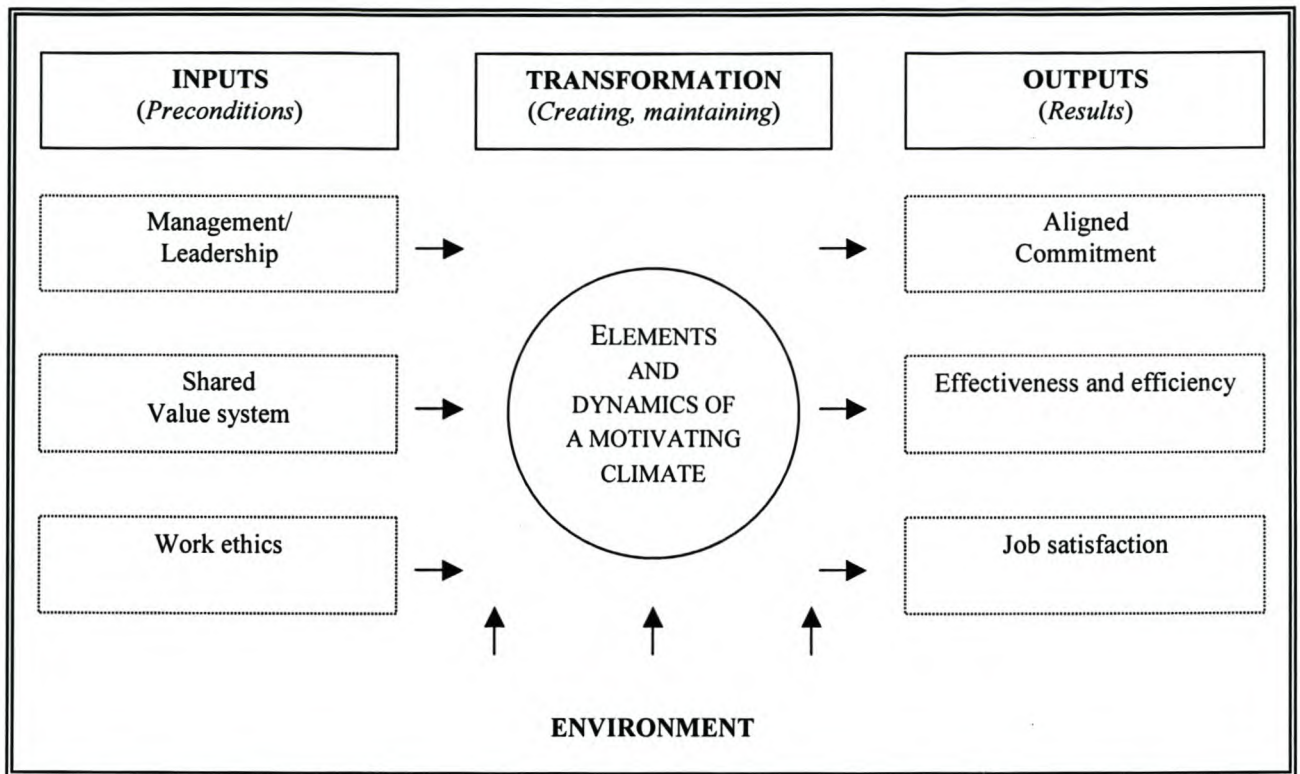
Coetsee (1999) substituted “power” with “empowerment” and extended the reward component to include “recognition”. In addition, “shared values and goals” were added to the equation, resulting in the commitment formula depicted below:

$$\text{Commitment} = \text{Knowledge} \times \text{Information} \times \text{Empowerment} \times \text{Recognition} \times \text{Shared Objectives and Values}$$

In order to create understanding of the concept, these elements will be explained briefly.

**(i) *KNOWLEDGE***

The element of knowledge entails (i) having information about a given object, (ii) having insight in its interrelationships with other objects and the dynamics of a greater whole, and (iii) showing understanding and wisdom with regards to it. It refers to “the knowledge of employees, their skills and abilities and the methods and techniques used to train, develop and stimulate their growth” (Coetsee, 2002, p.37).



**Figure 3.2:** An open system model of a motivating climate (Coetsee, 2002, p. 25)

**Table 3.1:** A Commitment – Resistance Continuum

LEVEL OF COMMITMENT	DESCRIPTION	SYMPTOM/ MANIFESTATION
<b>COMMITMENT</b> (Passionate/emotional bond)	IS PART OF	Enthusiasm (Long Term); ownership; internalisation; full identification.
<b>INVOLVEMENT</b> (Positive behaviour)	PARTICIPATES IN	Participation; willingness to participate.
<b>SUPPORT</b> (Positive attitude)	IN FAVOUR OF	“Votes for”; acceptance; co-operation if pressurised; does what s/he is told; loses interest.
<b>AWARENESS</b> (Is aware of)	AWARE OF	No activity.
<b>APATHY</b> (Lack of negative emotion/attitude)	DETACHMENT	Demonstrates no interest; passive resignation.
<b>PASSIVE RESISTANCE</b> (Negative perceptions and attitude))	MODERATE RESISTANCE	Voices opposing views; behaviour deteriorates; does as little as possible.
<b>ACTIVE RESISTANCE</b> (Opposing behaviour)	STRONG RESISTANCE	Works according to the rules; go slow; protest actions.
<b>AGGRESSIVE RESISTANCE</b> (Destructive behaviour)	DESTRUCTIVE RESISTANCE	Intentional mistakes; waste; subversion; sabotaging; terrorism; destruction; violence; murder.

Coetsee (1997, p.83)



**(ii) *INFORMATION***

Information, though closely related to knowledge, indicates the manner in which information, ideas and feelings are exchanged in an organisation. In other words, it refers to (i) the dissemination of information (downwards, upwards and laterally), (ii) the importance of the information, (iii) how well the information is being distributed and (iv) the degree to which employees understand and accept it.

**(iii) *EMPOWERMENT***

Coetsee (2002) describes empowerment as a reciprocal process or interaction between the manager/leader and team members. It is founded on trust and therefore requires trust and competency. Empowering employees include providing them with opportunities to participate in decisions, as well as assisting them with the process during which problems are identified and defined. Most importantly, it means ensuring that they have the necessary abilities to meet these challenges.

**(iv) *REWARDS AND RECOGNITION***

Recognising and rewarding employee efforts consist of linking desired behaviours with outcomes that are valued by employees. Recognition not only includes financial and non-financial rewards, but also refer to the withholding thereof, or the taking of disciplinary steps. This process is once again explained in terms of the psychological contract

**(v) *SHARED VISION (GOALS AND VALUE SYSTEM)***

Visions are viewed as consisting of two interrelated components, that is goals (what has to be achieved) and values (how is it going to be achieved). As such, they are instrumental in creating commitment: “shared values reflect the true nature of an organisation because they shape the behaviour of people and thus have a determining influence on human actions and the culture of the organisation” (Coetsee, 2002, p.35). This element refers to how clearly these values and goals have been formulated, how effectively they have been conveyed to employees and the degree to which all employees understand and accept them.



Coetsee's (1999, 2002) conceptualisation of commitment implies that various levels of commitment may be present in different departments, subgroups, or even individuals. Moreover, the specification of the various commitment levels and their interrelations provide a departure point for developing techniques to measure these levels. His approach to the conceptualisation of commitment is especially useful in designing and managing interventions, particularly in the field of Industrial Relations. The model provided offers a diagnostic framework which makes it possible to determine the degree to which change in organisations is accepted.

### **3.4. DIMENSIONS OF ORGANISATIONAL COMMITMENT**

Not surprisingly, the organisational commitment dimensions reported in the literature closely correspond to the various approaches identified. The modern view held is that commitment is a multi-dimensional phenomenon. Conversely, there seems to be some disagreement on what these dimensions are and how they interact to constitute commitment. Various dimensions have been believed to comprise commitment.

#### **3.4.1 AFFECTIVE OR ATTITUDINAL COMMITMENT**

According to this view of the construct, organisational commitment is defined as the relative strength of an individual's identification with and involvement in a particular organisation. This approach is considered to be the most prevalent in commitment literature and is derived from the work of Kanter (1968) and Buchanan (1974). The affective approach is, conversely, best defined by Mowday et al. (1979), who held commitment to be characterised by (a) a strong belief in and acceptance of the organisations's goals and values, (b) a willingness to exert considerable effort on behalf of the organisation, and (c) a strong desire to maintain membership in the organisation. This definition served as the basis for the development of the Organisational Commitment Questionnaire (OCQ) (Randall et al., 1990). This 15-item scale has been used extensively in research and has acceptable psychometric properties (Allen et al., 1990). Both the 15-item scale and its shortened version (consisting of 9 items) have been shown to possess acceptable psychometric properties (Allen et al., 1990).

Affective commitment, according to Diedericks (1996) involves a certain degree of identification with the organisation to such an extent that the individual feels obliged to retain membership in order to achieve its goals. "This process of accepting organisational goals and values and



integrating them into a system of personal goals and values is viewed as ‘organisational identification’” (Wiener, 1982, p.419). This acceptance of organisational expectations and values as behavioural guides is said to represent a form of “normative control” over the individual’s actions.

### **3.4.2 CALCULATIVE, CONTINUANCE OR BEHAVIOURAL COMMITMENT**

The calculative view of commitment was derived from Becker’s (1960) side-bet theory and refers to a psychological state in which the employee feels compelled to commit to the organisation because of monetary, social, psychological and other costs that will be incurred when leaving the organisation, i.e. opportunity costs. Commitment is viewed as a tendency to “engage in consistent lines of activity (Becker in Allen et al., 1990) based on the individual’s recognition of the above-mentioned costs. Consequently commitment has been defined as “a structural phenomenon, which occurs as a result of individual-organisation transactions and alterations in side-bets or investments over time” (Hrebiniak & Alutto, 1972).

Calculative / continuance commitment is based on an exchange relationship between the employee and the organisation. The degree of commitment is subsequently determined by the extent to which this relationship is advantageous to the employee. Due to perceived investments in the organisation, employees may experience a form of “commitment escalation” as a function of job tenure (Staw in Randall et al., 1990). Empirical evidence has shown that this dimension of commitment may be further divided into two correlated dimensions, namely *Low perceived alternatives* and *High personal sacrifice* (Meyer et al., 1990).

Some authors have requested that this dimension of commitment be disposed of, due to the consistently poor results it has produced in the past (Roodt, 1992).

### **3.4.3 MORAL OR NORMATIVE COMMITMENT**

The normative view of commitment is based on the typology of Etzioni (In Rossouw, 1988) and has not received as much attention in the literature as affective or continuance commitment. Some researchers have preferred to include moral commitment in other commitment dimensions, such as affective or attitudinal dimensions. Normative or moral commitment reflects an employee’s obligation or responsibility to the organisation and is based on his/her internalisation of norms and identification with organisational authority. According to this view, employees will be likely have a



strong normative commitment as a result of various organisational practices, socialisation efforts, or their own personal history, which may have led them to believe that the organisation deserves their loyalty. Consequently one may expect that an employee would display high moral commitment to an organisation if significant others have been long-term employees of an organisation and/or have emphasised the importance of organisational loyalty (Allen et al., 1990).

#### **3.4.4 ALIENATIVE COMMITMENT**

Alienative commitment represents a negative orientation toward the organisation and generally occurs in organisations where employees' behaviour is severely constrained (Rossouw, 1988). It is similar to Coetsee's concept of *resistance to change*. Wiener (1982) referred to alienation as a normative process, implying that employees are exposed to normative pressures to engage in a conduct contrary to organisational interests.

#### **3.4.5 MULTIDIMENSIONAL MODELS**

Several authors have adopted multi-dimensional approaches in their organisational commitment models, whereby two or more dimensions are included simultaneously. Allen et al. (1990) initially supported a three-component conceptualisation of organisational commitment. According to this model commitment incorporates affective, continuance/calculative and normative dimensions. Their underlying argument was that, although each dimension of organisational commitment reflects a certain link between the individual and the organisation that reduces the likelihood of voluntary turnover, it is the nature of the link that differs with each dimension. Employees with strong affective commitment are likely to remain within an organisation because they want to, those with strong continuance commitment because they need to, and those with strong normative commitment because they feel they ought to do so. The possibility was further suggested that these three components (rather than types of attitudinal commitment) develop independently as a result of different antecedents.

Randall et al. (1990), along with Allen et al. (1990), reasonably contended that affective, continuance and normative commitment should be viewed as independent components of commitment, implying that an employee can experience all three forms of commitment to varying degrees and raising the possibility of interaction effects. Allen et al.'s (1990) research provided preliminary evidence that the affective, continuance and normative components of attitudinal



commitment are conceptually and empirically separable. It therefore followed that “the ‘net sum’ of a person’s commitment to the organisation...reflects each of these separable psychological states” (Allen et al., 1990, p. 4).

The two-dimensional approach suggests that commitment is comprised of an attitudinal, moral or value dimension and a calculative dimension. In a review of the similarities between the behavioural and attitudinal approach to commitment, DeCotiis et al. (1987) revised the construct as a two-dimensional construct that is fundamental to organisational goal and value internalisation, and role involvement in terms of these goals and values. Organisational commitment was thus defined *as the extent to which an individual accepts and internalises the goals and values of an organisation and views his or her organisational role in terms of its contribution to those goals and values, apart from any personal instrumentalities that may attend his or her contribution* (DeCotiis et al., 1987, p.448).

Caldwell et al. (1990) substantiated this view by means of a confirmatory factor analysis, based on O’Reilly & Chatman’s (1986) conceptualisation and operationalisation of commitment. Their results indicated the existence of two unambiguous factors, which they referred to as *normative* and *instrumental* commitment. The former represents commitment based on shared values (similar to affective commitment) while the latter describes commitment based on involvement exchanged for specific rewards (similar to calculative / continuance commitment). Similarly, Kamfer et al. (1994) performed a confirmatory factor analysis using measures of overall, moral, calculative and alienative commitment. Their findings supported a two-dimensional approach, according to which commitment was comprised of affective and calculative dimensions. These dimensions were found to be largely unrelated.

### **3.5. AN INTEGRATION OF APPROACHES**

Some similarities between the various approaches are evident. A common denominator underlying attitudinal and instrumental views of commitment appears to be the emphasis placed on the exchange relationship between the individual and the organisation (Eisenberger, Fasolo & Davis-LaMastro, 1990). Due to the importance of this element of organisational commitment, further analysis thereof is required.



The concept of a psychological contract, i.e. the set of beliefs held by an individual employee about the terms of the exchange agreement between the employee and his/her organisation, has been accepted by researchers alike. Central to this exchange agreement lies what Lester et al. (2001) labels “norms of reciprocity”. These norms compel the employee to expect, seek out and create a psychological contract in order to gain understanding, or make sense of the employee-employer relationship. It is therefore critical that employers gain an understanding of what individuals’ desire for their employment relationship. The cognitive approach similarly refers to salient needs of the employee and perceptions of how these needs are being met. The underlying assumption to this approach is that employees have certain expectations which, if unmet, will repudiate the exchange relationship.

Another common theme relates to the individual’s internalisation of the organisation’s goals and values (DeCotiis et al., 1987). This theme is central to attitudinal theories as well as the model proposed by Coetsee (2002).

In conclusion, the literature seems to support both two- and three-dimensional conceptualisations of commitment, where commitment is mainly comprised of varying combinations of affective, calculative and/or normative dimensions.

### **3.6. ANTECEDENTS / CORRELATES OF COMMITMENT**

Much of the research on organisational commitment has been concerned with identifying the antecedents, or determinants of the construct (Mottaz, 1988; Wiener, 1982). Nonetheless such attempts have produced few consistent findings (Caldwell et al., 1990).

According to Bateman et al. (1984) most of the research on commitment antecedents has merely reported static relationships. In order to better demonstrate causality, longitudinal designs would be required. Wiener (1982) stated that the whole commitment research effort has been so “fragmented” and “unsatisfactory” that it was difficult to comprehend the construct as a unique and psychologically meaningful phenomenon. This was mainly attributed to the lack of a strong theoretical foundations and the general failure to link commitment to other work attitudes and motivational processes such as job satisfaction and motivation.

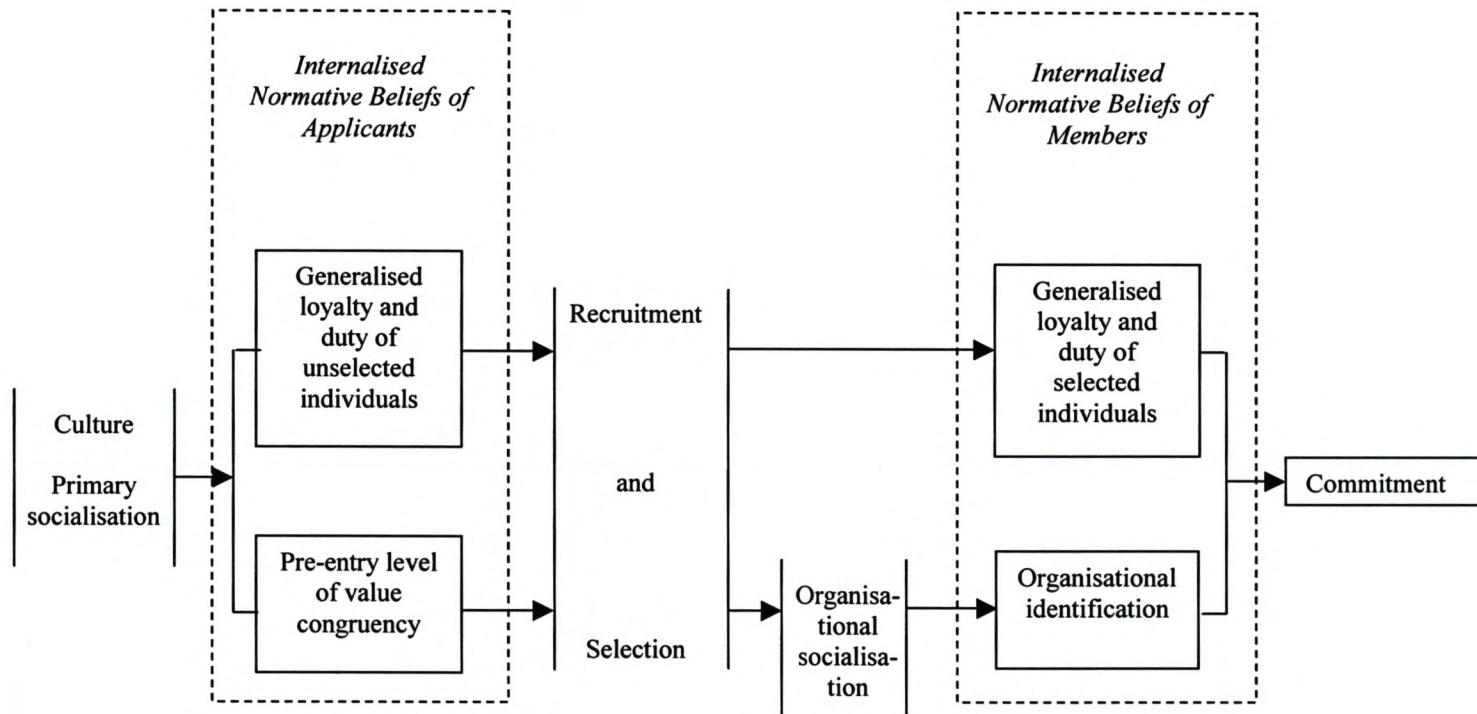


It would further appear that existing commitment models lack appropriate causal specification. This, according to Bateman et al. (1984) may have led to the inadequate or erroneous identification of antecedents. As a consequence it has been difficult to compare findings of various studies, mainly because they have focused on different key variables. (Mottaz, 1988). Moreover, most studies have until recently shown a preference for bi-variate rather than multivariate analytical techniques in identifying possible determinants of organisational commitment – a fact which may have contributed to the lack of consistent findings. It was suggested that until such time as other antecedents of commitment had been established more reliably, interventions aimed at increasing commitment would not realise their intended effects. Rather, it was predicted that interventions implied by such models would result in higher satisfaction, but not necessarily commitment.

Allen et al. (1990) proposed different antecedents for different commitment dimensions. They predicted that continuance commitment would be a function of perceived availability of alternatives and/or number of investments made, and that normative commitment will be influenced by a priori and post-entry socialisation experiences of the individual. Their results provided partial support for these hypotheses. In a similar fashion Bateman et al. (1984) pointed out that various conceptual approaches to organisational commitment (e.g. psychological vs. exchange perspectives) have generally entertained different antecedents. The exchange perspective, for example, typically isolate *work rewards* and *values* as key determinants of organisational commitment. “The greater the perceived congruence between work rewards and work values, the greater the commitment. Thus organisational commitment represents a person-environment fit” (Mottaz, 1988, p.470). Others have associated exchange commitment with variables such as job involvement, attitude toward change, work overload, and skill levels of subordinates (Stevens, 1977). Bateman et al. (1984) emphasised the necessity of studies which simultaneously investigate psychological and exchange commitment.

Notwithstanding, various classifications of commitment antecedents have been proposed by ways of enhancing parsimony. Wiener (1982) proposed a model of processes and events leading to organisational commitment (Figure 3.3).

From the diagram it can be seen that *generalised loyalty and duty*, and *organisational identification* are held to be the two immediate determinants of organisational commitment. Together they constitute those internalised normative beliefs that determine organisational commitment. The two immediate determinants are largely, but not entirely, independent.



**Figure 3.3:** A Flow Diagram of Processes and Events Leading to Commitment (Wiener , 1982, p.422)



Provided that the dimension of value congruency (i.e. identification) is positive, it is proposed that the two dimensions would combine additively to determine the strength of commitment.

Various categorisation systems have been employed for ordering organisational commitment antecedents. DeCotiis et al. (1987), drawing on an earlier classification by Stevens (1977), grouped commitment correlates under two general headings. *Personal Characteristics* generally refer to such variables as age, tenure, acceptance of the Protestant Work Ethic, central life interest in work, need for achievement, ambition, upward mobility, need for social relations, marital status, gender and education level. *Situational attributes* have been used in the past to refer to variables such as organisational structure, human resource processes and organisational climate. In a similar manner Mottaz (1988) distinguished individual characteristics from organisational characteristics.

Generally the antecedents of affective commitment have been grouped into four categories: personal characteristics, job/task characteristics, work experiences and structural characteristics (Allen et al., 1990, Mowday et al., 1982). Fukami et al. (1984) examined the effects of personal characteristics (age, tenure and education), role-related variables (job scope and job stress) and work experiences (pay equity, supervisory relations and social involvement) on organisational and union commitment. When these independent variables were entered in hierarchical stepwise regression, it was found that as a group they accounted for 29% of the variance in organisational commitment.

Rossouw (1988) further discussed some external determinants of organisational commitment. They are socio-normative, economic and technological changes.

### **3.6.1 EXTERNAL DETERMINANTS OF COMMITMENT**

External determinants can be further divided into three categories, namely socio-normative change, economic change and technological change (Rossouw, 1988). Due to the nature of external determinants, the effect on commitment is largely indirect.

#### **(a) SOCIO-NORMATIVE CHANGE**

Socio-normative change refers to the impact that societal norms and characteristics have on the work environment. As each individual represents unique values, aspirations and stereotypes, which



cannot be isolated from the work place, the work environment necessarily changes as these aspects evolve. This process is continuous, reciprocal and dynamic in nature. A typical example of this would be the evolvement of the knowledge worker, a phenomenon that dramatically transformed the relationship between employees and employers ever since employees have come to own the tools of production through the knowledge they hold (Kinnear et al., 2000). The knowledge worker on average requires different retention strategies than its more traditional counterpart, such as freedom to act independently, financial reward and recognition, developmental opportunities and access to leading edge technologies. As a result, organisations need to review their management practices to create the work environment that encourages these employees to remain with the organisation.

#### **(b) *ECONOMIC CHANGE***

Economic change has several implications for the organisation and the employee. Fluctuating economic factors may affect the employee's perception of the organisation's desirability as an employer. Employees are also more likely to change jobs during times of economic prosperity, as the number of alternative jobs increase. Furthermore, increased economic independence tends to offer more opportunities for non-work related activities, which in turn affect employees' central work interest.

#### **(c) *TECHNOLOGICAL CHANGE***

Technological change directly impacts job security as well as the work environment. More often than not it leads to increased specialisation, which increases the demand for knowledge workers, and so the circle continues.

### **3.6.2 PERSONAL / INDIVIDUAL CHARACTERISTICS**

Most findings relating to personal characteristics and organisational commitment have proved to be controversial. DeCottiis et al. (1987) offered two possible explanations for this. Firstly, the existence of a "commitment profile" was questioned. Secondly, it was quite possible that not all personal characteristics have been included in existing research efforts. Mottaz (1988) suggested that the relationship between demographic variables and commitment is an indirect one and should be viewed as spurious.



For instance, many researchers have believed commitment to be positively related to age and tenure, while being negatively related to educational level tenure (Angle and Perry, 1981; Ferris and Aranya, 1983, Fukami et al., 1984; Luthans, Baack & Taylor, 1987). Organisational commitment has been found to be differentially related to sex and marital status (Ferris et al., 1983).

Nonetheless, Batemen et al. (1984) found that personal characteristics did not contribute much to explanations of variance in organisational commitment. The effects of age, education and need for achievement were found to be insignificant when other predictors were statistically controlled for. Their findings are contrary to that of Arnold (1995) and Stevens (1977), who found need for achievement (as well as high work ethic and self-esteem) to be an important determinant of an individual's commitment.

Mottaz (1988) too cautioned that tenure in itself does not indicate why high-tenure workers are more committed, in spite of expressed relations between tenure and organisational commitment. Rather, different levels of work rewards and values are said to correlate with tenure.

The study of other personal characteristics have also proved to be controversial. Contrary to Luthans et al.'s (1987) findings, Kinnear et al. (2000) found a negative correlation between locus of control and organisational commitment. Arguably, Kinnear et al.'s (2000) study targeted a much more specific population, i.e. the knowledge worker.

Another controversial issue pertains to the causal relationship of commitment with job satisfaction. Contrary to prior evidence, Bateman et al. (1984) suggested that job satisfaction be viewed as a cause of commitment rather than a result of it. This caused DeCottiis et al. (1987) to remark that the literature is less than committal with regards to the direction of commitment-satisfaction causality. Their results supported a commitment → satisfaction relationship. Similarly, Luthans et al. (1987) identified satisfaction with supervision as an antecedent of organisational commitment, while Boshoff et al. (1995) reported that job satisfaction positively influenced organisational commitment.

In addition to demographic or status variables, relationships have been reported between organisational commitment and other socio-psychological variables such as professional commitment and organisational-professional conflict (Ferris et al., 1983). Roodt (1997) noted correlations with various commitment foci such as job involvement, occupational and professional



commitment, career commitment, union commitment, central life interest, Protestant work ethic, organisational commitment tendency and community involvement (Roodt, 1997).

DeCotiis et al. (1987) argued that a distinction should be made between individual-based and organisational-based personal characteristics as causal variables. They claimed that this recasting of personal characteristics in organisational terms is consistent with the behaviourist view of commitment.

### **3.6.3 TASK- OR ROLE-RELATED CHARACTERISTICS**

Correlates or antecedents grouped under the heading of task-related characteristics have typically included grouped job challenge, role conflict and ambiguity, responsibility and remuneration (Rossouw, 1988). Boshoff et al. (1995) reported an inverse relation between organisational commitment and role conflict.

Important findings by Mottaz (1988) suggest that organisational commitment would be high in an environment where workers perceive the organisation as providing interesting and meaningful tasks, a friendly and supportive environment, as well as good pay and promotional opportunities. Their findings indicated that intrinsic rewards (task autonomy, task significance, task involvement) were the most powerful determinants of organisational commitment, followed by extrinsic social rewards (supervisory assistance, co-worker assistance) and extrinsic organisational rewards (working conditions, pay equity, promotional opportunity, fringe benefits). Work values relating to the above rewards have shown a much weaker effect on organisational commitment. This finding was verified by that of Putti, Aryee & Liang (in Elizur & Koslowsky, 2001). Task identity was found to have an inverted U-shaped curvilinear relationship with organisational commitment (Lin et al., 2002).

Fukami et al. (1984) examined job scope and job stress as role-related antecedents of organisational commitment. Job scope was found to be positively related to organisational commitment, while a negative correlation with job stress was indicated. Some researchers have grouped these variables under the heading of “work experiences”.



### 3.6.4 WORK EXPERIENCES

“Work experiences are viewed as a major socialising force and as such represent an important influence on the extent to which psychological attachments are formed with the organisation” (Mowday et al., 1982, p.34). The following work experiences have been reported to influence affective commitment (Allen et al., 1990):

- Job challenge, i.e. the extent to which jobs are challenging;
- Role clarity;
- Goal clarity and difficulty;
- Management receptiveness, i.e. the extent to which management is receptive to employee suggestions;
- Peer cohesion;
- Organisational dependability;
- Equity;
- Personal importance;
- Feedback concerning work performance;
- Participative decision making.

Other variables that may be included as work experiences are organisational processes such as leader punitive behaviour (Bateman et al., 1984), communication, staffing methods and compensation (DeCotiis et al., 1987). The type of control that organisations exercise over its members, the degree of supervision and social involvement with other members have all been linked to organisational commitment (Fukami et al., 1984). Consistent, albeit indirect, evidence has suggested a positive relationship between commitment and factors such as confirmation of pre-entry expectations and role clarity. More recently Witt, Patti and Farmer (2001) investigated the role of organisational politics and work identity as predictors of organisational commitment. Their results indicated that employees who identified primarily with their occupations were less affected by the level of perceived politics in terms of their organisational commitment, than their counterparts who identified primarily with their work units.



### 3.6.5 STRUCTURAL CHARACTERISTICS

Organisational structure has been defined in terms of the morphology or shape of the organisation, size of the organisation and number of levels in the organisational hierarchy (DeCotiis et al. (1987). Morris and Steers (1980, p51) considered structural variables as antecedents of commitment based on the assumption that employee perceptions regarding these variables constituted, for them, the reality of how structural prescriptions were used to organise and co-ordinate their work. Their findings indicated that structural variables accounted for 20% of the variation in organisational commitment. Morris et al. (1980) isolated variables such as decentralisation, formalisation, supervisory span of control, span of subordination and perceived functional dependence as structural influences on commitment. Their findings indicated that commitment, as an attitude, reacts much in the same way to structure, as does satisfaction. They concluded that *decentralisation*, *functional dependence* and *formalisation* best explained variance in organisational commitment. It was suggested that the latter variables influences organisational commitment by facilitating role clarity.

### 3.6.6 CLIMATE AS AN ANTECEDENT OF ORGANISATIONAL COMMITMENT

Morris et al. (1980) argued that structural variables constitute a “system of potential influences” on employees’ perceptions and responses and that their influence should therefore be considered as a whole. In view of this, DeCotiis et al. (1987, p452) strongly suggested that perceptions of these structural variables might be a more significant determinant of individual responses to the organisation than the structural variables themselves:

Organisational climate has its source in the individual’s experiences with the structures and processes of an organisation. From these discrete experiences, the individual derives meaningful modal perceptions of the organisation that serve as cues for adapting his or her behaviour to organisational demands. It may be that climate perceptions affect an individual’s perception of the congruence between organisational goals and his or her own goals and, hence, his or her role involvement.

According to social exchange theory employees perceive the relationship between themselves and the organisation as favourable to the extent that the organisation supports and values the individual. These perceptions are extremely important as they may in turn facilitate reciprocity from the employee in the form of increased commitment, involvement and other benefits to the organisation



(Eisenberger et al., 1990; Shadur et al., 1999). The role of perceptions in the formation of organisational commitment thus suggests a link between organisational climate and organisational commitment.

In support of the above DeCottiis et al. (1987) cited various instances where climate dimensions such as autonomy, cohesiveness and trust have been associated with commitment. They postulated that the effect of organisational climate on organisational commitment was independent from the effect of structure or process variables. Their results indicated that climate explained 43% of the variance in organisational commitment. Schwepker (2001) reported research in which educational climate was found to predict organisational commitment. In this study, educational climate accounted for 21% of the variance in organisational commitment.

Roodt (1992), on the other hand, argued that the use of climate as a predictor could possibly enhance organisational commitment predictor models. His findings that climate dimensions, such as identity, rewards and standards explained 56% of the variance in organisational commitment supported that of DeCottiis et al.'s (1987). Of particular interest was the fact that merely 3 of the organisational climate dimensions explained most of the variance, as opposed to the 8 organisational climate dimensions in DeCottiis et al.'s (1987) study.

From the above review of commitment antecedents it is clear that the categories proposed in the literature are neither comprehensive, nor mutually exclusive. Furthermore, the relations between these antecedents, respectively with one another, as well as with organisational commitment, are not clear. Little attention has been given to the effects that individual perceptions may have on the development of commitment. It therefore appears that climate measures may best account for various interaction effects between some of these antecedents.

### **3.7. THE MEASUREMENT OF ORGANISATIONAL COMMITMENT**

According to Cook et al. (1980) many of the commitment scales found in the literature have been developed for very specific populations, rendering them slightly useless for purposes of comparison. To worsen matters, most researchers have failed to quote in detail all the items that were employed in their questionnaires. In most instances psychometric support has been limited to internal consistency measures.



The following measures of organisational commitment will be shortly discussed:

- Cook et al.'s (1980) measure of Organisational Commitment;
- Porter et al.'s (1979) Organisational Commitment Questionnaire;
- Hrebiniak et al.'s (1972) measure of Organisational Commitment; and
- Coetsee's (2002) scale of Organisational Commitment.

### **3.7.1 The COOK AND WALL (1980) ORGANISATIONAL COMMITMENT SCALE**

The above-mentioned scale was developed together with scales measuring *Interpersonal trust at work* and *Personal Need Non-Fulfilment*. These scales were developed by means of two interview studies that had been undertaken among blue-collar workers in British working populations.

Item construction and/or selection was performed based on the work of Buchanan (1974) and Maslow (1954).

The Cook and Wall Commitment Scale consisted of 9 items and represented the following aspects of organisational commitment:

- Organisational identification – items 1, 5, and 8.
- Organisational involvement – items 3, 6, and 9.
- Organisational loyalty – items 2, 4, and 7.

Alpha coefficients of 0.87 and 0.80 were reported in two separate studies. Test-retest data, as well as homogeneity and cross-validation data offered substantial evidence that the scale is psychometrically stable and reliable. Factor analysis of all three scales revealed 4 factors of which organisational commitment loaded on the second factor.

### **3.7.2 THE MOWDAY , STEERS AND PORTER (1979) ORGANISATIONAL COMMITMENT QUESTIONNAIRE (OCQ)**

The Mowday et al. (1979) OCQ has been the most widely utilised measure of commitment (Ferris et al., 1983). Ferris et al. (1983) used it for measuring professional commitment by referring to “profession” as a focus of commitment in stead of “organisation”. In their comparison of the Mowday et al. (1974) instrument and one developed by Hrebiniak et al. (1974), the former was found to display greater predictive validity.



The OCQ, as it is commonly referred to, consists of 15 items and has repeatedly demonstrated good psychometric properties (Angle et al., 1981; Ferris et al., 1983; Kamfer et al., 1993; Mowday, Steers & Porter, 1979; Shore et al., 1989). Respondents are asked to indicate the extent of their agreement with items on a 7 point, verbally anchored scale. Items reflect a combination of attitudes and behavioural intentions and emphasised employees' moral involvement with the organisation.

This measure of commitment is generally believed to measure affective or attitudinal commitment (Allen et al., 1990; Kamfer et al., 1993). Angle et al. (1981) noted that it appears to tap a form of commitment that is conceptually close to work involvement. After having conducted factor analysis, they found that two sub-scales existed, that is *value commitment* ( $\alpha = 0.89$ ) and *commitment to stay* ( $\alpha = 0.72$ ). They concluded that the OCQ differentiated between respondents' (a) commitment to support the goals of the organisation and (b) commitment to retain membership.

Brooke, Russell and Price (1988) performed a confirmatory factor analysis on (among others) Porter et al.'s OCQ by means of the LISREL VI program. Results indicated that measures of job satisfaction, job involvement and organisational commitment assess empirically distinct concepts.

A short version of the OCQ is available, where only the 9 positively worded items are employed. Mowday et al. (1979) warned, however, that several of the negatively worded items correlated more highly with the total score than the positively phrased items. Exclusion of the negatively keyed items may further promote acquiescence response tendencies.

A possible drawback of this scale is that it had been primarily designed for American employees. As a result, the phrasing of items is not appropriate for all populations (Cook et al., 1980). Of particular importance to the present study was the fact that this measure had been criticised for inflating concept redundancy between organisational commitment and intention to quit (Becker et al., 1993; Bishop, Goldsby & Neck, 2002). The short 9-item version of the measure is more appropriate in this regard. Finally, the measure is considered by some as a one-dimensional measure of organisational commitment.

### **3.7.3 The HREBINIAK AND ALUTTO (1972) ORGANISATIONAL COMMITMENT QUESTIONNAIRE**

The Hrebiniak and Alutto measure of Organisational Commitment draws mainly on the calculative dimension of organisational commitment and measures the likelihood of turnover as a function of



four alternative external inducements (Ferris et al., 1983). Respondents are required to indicate to which degree each of the following circumstances may cause them to leave their organisation: (a) under a slight increase in pay, (b) under slightly more freedom to be professionally creative; (c) under slightly more status, and (d) in order to work with people who are a little friendlier. The traditional interpretation that the measure draws on Becker's (1960) side-bet theory has been challenged both conceptually and empirically (Allen et al., 1990).

An inherent assumption of this approach relates to the exchange or reward-cost model of commitment which may be likened to the concept of a "psychological contract". Commitment is viewed as a structural phenomenon that occurs as a result of exchange transactions between the individual and the organisation.

Adapted versions of this scale have proved to be reliable, with alpha coefficients being reported as 0.88.

#### **3.7.4 THE ORGANISATIONAL DIAGNOSTIC QUESTIONNAIRE (2002)**

In his revised Organisational Diagnostic Questionnaire, Coetsee (2002) included Aligned Commitment as one of its composite dimensions. This scale is comprised of 15 items. This scale is considered to be particularly appropriate in the context of change management and the management of industrial relations.

The Aligned Commitment Factor measures (a) the extent to which employees are focussed on a shared vision, have common goals and are driven by an identical value system, and (b) the extent to which they are committed to these goals and values. In this sense it draws on value congruence as well as involvement.

Although the ODQ has been successfully applied for approximately 30 years, the aligned commitment scale was only recently added. Empirical testing within the mining industry ( $n = 800$ ) revealed acceptable psychometric properties for the scale, with alpha coefficients reported between 0.687 and 0.961 (Coetsee, 1993).



### 3.8. TURNOVER INTENTIONS

One of the most often investigated outcomes of organisational climate has been voluntary turnover (Greenberg et al., 1997; Kamfer et al., 1993; Mottaz, 1988). Randall (1990), for example, presented a synopsis of 35 studies linking organisational commitment to various outcomes. Of these studies, nineteen provided a link between organisational commitment and turnover. The inverse relation between organisational commitment and turnover does not, however, apply to all employee groups. Werbel et al. (1984) pointed out that job tenure tends to moderate the relationship between organisational commitment and turnover. It was argued that initial organisational commitment is based on unrealistic expectations or post-decisional justification of new employees. They found no relationship between organisational commitment and turnover among subjects who had been employed less than one year. In contrast, an inverse relationship was found between organisational commitment and turnover when the moderation effects of tenure were taken into consideration.

Organisational commitment has often been linked to turnover through intention to search and/or intention to quit (Randall, 1990), also referred to as turnover motivation. This link is not surprising in view of the long accepted posit that a desire to retain organisational membership is an important aspect of organisational commitment (Morris et al., 1980; Werbel et al., 1984). Various researchers have contended, however, that intent to stay should be distinguished from organisational commitment (Bishop et al., 2002; DeCottiis et al., 1987). This view has since gained general support.

Strong evidence further exists that high levels of organisational commitment are inversely related to intentions to quit (Bishop et al., 2002; Schwepker, 2001). The general view is that organisational commitment involves psychological attachment to the organisation that makes separation difficult. According to Jamal (1990) measures of turnover motivation have successfully been used in the past as valid measures of actual turnover. Intention to quit appears to be the immediate antecedent to actually leaving, as was indicated by numerous studies (Schwepker, 2001). This notion is consistent with the organisational commitment models proposed by Fishbein (1967) and later Wiener (1982).

Limited evidence exists that links organisational climate to turnover intentions, however. Hemingway et al. (1999) found an indirect link between organisational climate and turnover intentions. Nevertheless, Schwepker (2001) cited research in which significant negative relationships between turnover intention and innovative and pleasant organisational climates were



found. He believed ethical climate to be important in the management of undesirable turnover via its relationship to organisational commitment. The same is believed to be true of organisational climate.

The measurement of intention to quit, as opposed to turnover, has some practical advantages. For instance, it is often difficult to measure subjects' organisational commitment after they had left. Turnover is also much more difficult to predict than intentions since there are many external factors that affect turnover behaviour (Shore et al., 1989). More importantly, it has been noted that commitment (or lack thereof) to an organisation may initiate a rationalising process through which individuals create meaning out of their circumstances by developing attitudes that are consistent with their levels of organisational commitment (Bateman et al., 1984). What this implies is that employees who have already left an organisation may have sufficiently adapted their levels of commitment in order to reduce any cognitive dissonance that they may have experienced. A measure of intent to quit will thus enable the researcher to measure corresponding levels of organisational commitment prior to any such rationalisations.

Various measures of intention to quit (or stay) have been reported in the literature (Bateman et al., 1984; Bishop et al., 2002; Becker et al., 1993; Hemingway et al., Jamal, 1990, Shore et al., 1989). Respondents are mostly requested to indicate their probability of staying with (or leaving) the same organisation on scales consisting of 2 to 4 items. A higher score on measures of intent to quit are interpreted as a high probability of leaving the organisation, while the opposite is true for intent to stay.

### **3.9. CONCLUSION**

Organisational commitment remains an important construct in organisational psychology. A review of literature pertaining to the construct has revealed that there are grounds for assuming a link between organisational climate and organisational commitment on the one hand, and organisational commitment and turnover motivation on the other.

In this chapter the importance of organisational commitment as a phenomenon in organisational psychology was emphasised. An overview of various conceptual approaches to organisational commitment was presented, including the different dimensions it supposedly consists of. Thereafter



the antecedents as deliberated in the literature were discussed. Finally, some of the most frequently used scales were evaluated. The literature pertaining to turnover intentions was briefly reviewed.



## CHAPTER FOUR

### RESEARCH DESIGN AND METHODS OF ANALYSIS

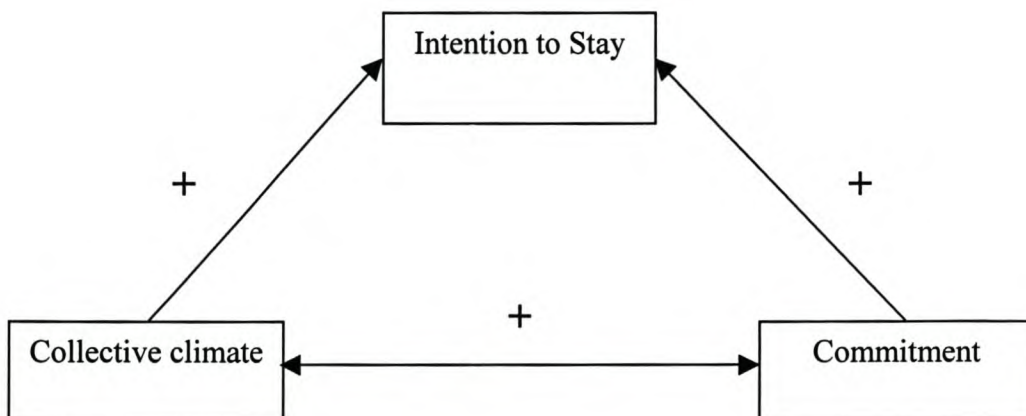
#### 4.1. INTRODUCTION

In the previous three chapters a need was identified to explore the respective relationships between organisational / collective climate, organisational commitment, and turnover motivation / intention to stay. A brief overview was given of the literature pertaining to the organisational climate and commitment constructs. The objective of the current chapter is to provide an outline of the research problem and objectives as well as the design and methodology used to achieve those objectives. A brief discussion of the sample group selected, followed by a discussion of the various measures employed, hypotheses and analytical methods will be presented in this chapter. The results and interpretation thereof will be presented in Chapters Five and Six.

#### 4.2. RESEARCH PROBLEM AND OBJECTIVES

The research problem central to the present study pertains to the nature of the relationship that exists between three constructs, namely collective climate, organisational commitment and intention to stay (turnover intention). It is therefore considered to be descriptive in nature.

Based on the literature reviewed in Chapters 2 and 3 the following tentative model was suggested:



**Figure 4.1** The proposed relationship between collective climate and Organisational Commitment

According to the proposed model, *collective climate* and *organisational commitment* are respectively depicted as independent variables, with *intention to stay* as the dependent variable. It is proposed that certain collective climate dimensions will contribute to the development of individual commitment within that work group and at the same time will reduce the likelihood of turnover. Organisational commitment is believed to influence intentions to stay.

The primary research objective in this study is to investigate the relationship between collective climate and commitment. The following secondary objectives have been formulated:

- RO1: To determine whether different collective climates may be identified within the respective departments / shafts;
- RO2: To determine whether a significant relationship exists between collective climate and organisational commitment;
- RO3: To determine whether a significant relationship exists between collective climate and turnover motivation / intention to stay;
- RO4: To determine whether a significant relationship exists between organisational commitment and turnover motivation / intention to stay.

#### **4.3. HYPOTHESES**

Based on the literature review and the research problem, the following hypotheses were formulated:

##### **Hypotheses 1**

H01:

No significant differences in mean climate scores exist between the collective climate groups identified in each department.

Ha1:

Significant differences in mean climate scores exist between collective climate groups identified in each department.



## **Hypothesis 2**

H02:

No significant relationship exists between Collective Climate and Organisational Commitment.

Ha2:

A significant, positive relationship exists between Collective Climate and Organisational Commitment.

## **Hypothesis 3**

H03:

No significant relationship exists between Collective Climate and Intention to Stay.

Ha3:

A significant, positive relationship exists between Collective Climate and Intention to Stay.

## **Hypothesis 4**

H04:

No significant relationship exists between Organisational Commitment and Intention to Stay.

Ha4:

A significant, positive relationship exists between Organisational Commitment and Intention to Stay.

The above hypotheses have been depicted in Figure 4.1.

The above hypotheses are known as substantive hypotheses (Kerlinger, 1986, p. 189). As such they merely represent conjectural statements of the relationships between two or more variables and cannot be tested. These substantive hypotheses were therefore translated into the following statistical hypotheses:

### **Hypothesis 1**

$$H_0: \bar{X}_1 = \bar{X}_2 = \bar{X}_3 = \dots = \bar{X}_k; p < 0.01$$

$$H_1: \bar{X}_1 > \bar{X}_2 > \bar{X}_3 > \dots = \bar{X}_k; p < 0.01$$

### **Hypothesis 2**

$$H_0: r = 0, p < 0.01$$

$$H_1: r > 0, p < 0.01$$

### **Hypothesis 3**

$$H_0: r = 0, p < 0.01$$

$$H_1: r > 0, p < 0.01$$

### **Hypothesis 4**

$$H_0: r = 0, p < 0.01$$

$$H_1: r > 0, p < 0.01$$

## **4.4. RESEARCH DESIGN**

“Research design is the plan and structure of investigation so conceived as to obtain answers to research questions” (Kerlinger, 1986, p.279). The plan delineates what the researcher intends to do, whereas the structure refers to the paradigm or model of the relations among variables of a study. According to Mouton (2001) the research design constitutes the blueprint of how the researcher intends to conduct the research. The purpose of research design is mainly to provide answers to research questions and to control variance.

The nature of the research question posed in the present study necessitated the utilisation of an empirical, yet non-experimental research design. In such instances the researcher does not have direct control of independent variables because their manifestations have already occurred or because they are not manipulable (Kerlinger, 1986). Non-experimental research therefore has three



inherent weaknesses: (a) the inability to manipulate independent variables, (b) the lack of power to randomise and (c) the risk of improper interpretation. A cross-sectional design was considered appropriate for purposes of the study.

According to Mouton (2001) studies of this nature have the advantage that results could potentially be generalised to large populations provided that appropriate sampling design has been implemented. Furthermore, high measurement reliability is likely if proper questionnaire construction have been executed. Similarly high construct validity is likely if proper controls have been implemented.

Main sources of error that are typically associated with such research designs include sampling error, questionnaire error, low response rates, data capturing error and / or inappropriate selection of statistical techniques.

#### **4.5. DESCRIPTION OF SAMPLE**

The study was based on data collected in a major South African company in the mining industry. The company consists of various operations, of which the mining operation was the primary focus. Its departments (shafts) are geographically dispersed, with distances between the respective shafts varying between 3 and 23 kilometres.

The sample selected for the purpose of the study covered three occupational groups, namely Accountants, Middle Management: Production and Technical Trainers. These occupations were selected a priori, based on the high voluntary turnover levels that were prevalent in these groups. In this respect non-random sampling method was employed and the sampling frame consisted of all employees belonging to the specific occupational groups within the organisation.

The occupational groups may be further described as follows:

##### **4.5.1 ACCOUNTANTS**

This category is considered as a surface position, implying that underground work is not specified as a working condition. It is mostly comprised of professionally qualified knowledge workers. These individuals occupy supportive or advisory roles and report to management with regards to



production- and labour-related costs. The following positions have been included in this category: Operations Accountants, Cost Accountants, Finance Diplomats and Finance Graduates.

#### **4.5.2 MIDDLE MANAGEMENT: PRODUCTION**

These individuals occupy supervisory roles and report to more senior management levels. Two occupational groups, i.e. Mine Overseers and Shift Supervisors, were combined to form a larger group. Shift Supervisors report to their respective Mine Overseers, resulting in a direct line of supervision. Underground work is specified as a working condition for these occupations.

#### **4.5.3 TRAINERS**

This group is comprised of Training Officials and Technical Trainers. All of these occupational incumbents have at least 12 years of education and possess either engineering trade tests or blasting certificates. They are required to train, assess and declare as competent employees in the engineering or production field.

The subjects were employed at a total of 12 different departments or shafts ( $n = 499$ ). Smaller departments have been combined in order to enhance meaningful interpretation. These combinations were selected in such a manner that they reflected formal work groups as far as possible.

The sample chosen is comprised of relatively senior job levels and thus merely two discernable job levels have been identified. The company currently makes use of the Paterson job grading system, as is the norm within the specific industry. In the specific sample group, Level A represents employees who form part of middle management and who usually act in the first or second line of supervision. Level B represents a higher job level than Level A and employees in this group form part of the third line of supervision.

In order to determine whether the sample of 236 who completed and returned the questionnaires was representative of the larger sample whose participation was solicited, respondents were compared with non-respondents with respect to age, gender, department and occupation.



**Table 4.1: Distribution per age category**

Age category	Frequency (Sample)	Frequency (Respondents)	Percentage (Sample)	Percentage (Respondents)
20 – 30	72	45	14.0	19.1
31 – 40	220	105	44.0	44.5
41 – 50	178	74	36.0	31.4
51+	29	12	6.0	5.1
<b>Total</b>	499	236	100.0	100.0

From the age distribution it is apparent that the sample is sufficiently represented in terms of age category. The respondents between ages 20 and 30 years have been slightly over-represented. This difference was offset in the group between 41 and 50 years.

**Table 4.2: Distribution per department**

Age category	Frequency (Sample)	Frequency (Respondents)	Percentage (Sample)	Percentage (Respondents)
Shaft A	56	33	11.2	13.5
Shaft B	31	28	6.0	11.5
Shaft C	46	8	9.2	3.3
Shaft D	25	14	5.0	5.7
Shaft E	28	16	5.6	6.6
Shaft F	35	13	7.0	5.3
Shaft G	29	14	5.8	5.7
Shaft H	36	18	11.6	7.4
Shaft I	58	11	8.0	4.5
Shaft J	40	16	6.8	6.6
Shaft K	34	15	4.2	6.1
Shaft L	21	58	19.2	23.8
<b>Total</b>	499	244	100	100

Both the chosen sample and the response group largely correspond in terms of distribution per department. On face value the distributions appear relatively similar especially with respect to Shafts G, J and D. The only exception proves to be Shaft B which suffers from a slightly skewed distribution. In both groups the majority of the subjects represent Shafts L, A and H. It would therefore appear as if the result obtained from the response group may be viewed as representative of the sample.

**Table 4.3: Distribution per occupation**

Age category	Frequency (Sample)	Frequency (Respondents)	Percentage (Sample)	Percentage (Respondents)
Accountants	57	34	11.4	13.9
Management	386	164	77.0	67.2
Trainers	56	46	11.2	18.9
Total	499	244	100	100

When comparing the distribution per occupation of the sub-population and the sample group, it is clear that similar distribution patterns emerge. The largest proportion of both groups, that is approximately seventy percent, represent Middle Management, while the Accountants and Trainers seem to be represented in equal proportions. The response group is thus considered as sufficiently representative of the sample group with respect to occupational groups.

**Table 4.4: Distribution per job level**

Age category	Frequency (Sample)	Frequency (Respondents)	Percentage (Sample)	Percentage (Respondents)
Level A	418	202	83.8	82.8
Level B	81	42	16.2	17.2
Total	499	244	100	100

The majority of respondents appear to reside under the first category, namely job level A. It is evident that the distribution of the response group corresponds nearly exactly with that of the sample group in terms of job level.



## 4.6. SCALES

Questionnaires comprised of a cover page, biographical data and three questionnaires were distributed among subjects. An example of the questionnaire appears in Addendum A. The questionnaires were distributed to all relevant HR Officers who were in turn responsible for distributing and retrieving it from the Mine Overseers and Shift Supervisors. The questionnaires of Technical Trainers and Accountants were distributed by their respective departmental heads.

Participation was anonymous in the respect that no form of identification (i.e. name or company number) was required. In order to ensure total comprehension of the questionnaires, all items were presented in English and Afrikaans.

### 4.6.1 THE KOYS AND DECOTTIIS ORGANISATIONAL CLIMATE QUESTIONNAIRE

#### (a) *DEVELOPMENT AND RATIONALE OF THE ORGANISATIONAL CLIMATE QUESTIONNAIRE*

Koys et al. (1991) developed the above-mentioned scale in response to widespread disagreement on the dimensionality and measurement of Organisational Climate. They defined Organisational Climate as “an experiential-based, multi-dimensional and enduring perceptual phenomenon which is widely shared by the members of a given organisational unit” (Koys et al., 1991, p.266).

By means of a comprehensive literature review, Koys et al. (1991) identified a total of 80 organisational climate dimensions and attempted to reduce them in such a manner as to specify a theoretically-meaningful and analytically-practical universe of all possible climate dimensions. Their aim was to specify the total universe of psychological climate dimensions that would cross all organisational settings and levels. In order to achieve the above-mentioned objective, several decision rules were employed. First of all, selected dimensions had to be measures of perception as opposed to objective measures of climate. Secondly, selected dimensions were required to be descriptive, and not evaluative, of the activities in question. Finally, they were required not be an aspect of organisational or task structure.

As a result of applying the criteria outlined above, all objective, evaluative and affective climate measures were eliminated, including measures that named properties of organisational structure. The retained dimensions were subjected to cluster analysis, following which all ambiguous

dimensions were eliminated. A total of forty-five dimensions were retained and categorised into eight concepts viewed as the universe of psychological climate.

**(b) DESCRIPTION OF THE ORGANISATIONAL CLIMATE QUESTIONNAIRE**

The final version of the Koys and DeCottiis Organisational Climate Questionnaire consists of 40 items – 5 items per dimension. Subjects rated each item on a 7-point Likert scale ranging from “Strongly agree” to “Strongly Disagree”. The eight dimensions are defined as follows:

*Autonomy* (items 1 to 5)

The perception of self-determination with respect to work procedures, goals, and priorities.

*Cohesion* (items 6 to 10)

The perception of togetherness or sharing within the organisation setting, including the willingness of members to provide material aid.

*Trust* (items 11 to 15)

The perception of freedom to communicate openly with members at higher organisational levels about sensitive or personal issues, with the expectation that the integrity of such communications will not be violated.

*Pressure* (items 16 to 20)

The perception of time demands with respect to task completion and performance standards.

*Support* (items 21 to 25)

The perception of the tolerance of member behaviour by superiors, including the willingness to let members learn from their mistakes without fear of reprisal.

*Recognition* (items 26 to 30)

The perception that member contributions to the organisations are acknowledged.

*Fairness* (items 31 to 35)

The perception that organisational practices are equitable and non-arbitrary or capricious.



*Innovation* (items 36 to 40)

The perception that change and creativity are encouraged, including risk-taking into new areas or areas where the member has little or no prior experience.

**(c) *VALIDITY AND RELIABILITY***

Reliability refers to the consistency of scores obtained by the same persons when re-examined with the same test on different occasions, or with different sets of equivalent items, or under other variable examining conditions (Anastasi, 1976). Validity refers to the degree with which a given instrument measures exactly that which it intends to measure (Nunnally, 1978).

The psychometric and factor analytic results of the above dimensions have been reported in previous research by Koys et al. (1991) as encouraging, while “adequate” reliability and internal consistency for the measures have been noted. Table 4.5 presents the item summaries, corrected item score to total score correlations as well as Cronbach’s alpha for two sample groups.

**(d) *SCORING***

Eight dimension scores for each respondent are calculated by adding the scores of the relevant items in each dimension and dividing these totals by the number of items measuring each dimension. These scores are considered as the psychological climates of the respondents. The item scores of the Organisational Climate Questionnaire add up, implying that a high sum total reflects a positive climate. Five items of the questionnaire are negatively keyed and have to be reversed. These include items 16, 18, 19, 20 and 27.

**(e) *MOTIVATION FOR UTILISING THE ORGANISATIONAL CLIMATE QUESTIONNAIRE***

In view of the systematic manner in which this measure had been developed it was considered as the most appropriate measure of Organisational Climate. The questionnaire was previously recommended by Roodt (1992) as an alternative to the Litwin et al. (1968) questionnaire in a similar study of the relationship between Organisational Climate and Organisational Commitment.

**Table 4.5: Climate Dimensions, Item-Total Correlations, Coefficients Alpha**

DIMENSIONS	ITEM SUMMARY	$r_{it}$		Alpha	
<b>Autonomy</b>	1. I make most decisions	.46	.58	.83	.76
	2. I determine my own work procedure	.65	.75		
	3. I schedule my own work	.57	.47		
	4. I set standards	.45	.42		
	5. I organise my work	.41	.51		
<b>Cohesion</b>	6. People help each other	.54	.75	.87	.82
	7. People get along	.58	.66		
	8. Personal interest	.59	.71		
	9. A lot of team spirit	.66	.77		
	10. A lot in common	.41	.26		
<b>Trust</b>	11. Line manager keeps things private	.55	.63	.88	.87
	12. Line manager has integrity	.64	.79		
	13. I can level with my line manager	.74	.71		
	14. Line manager keeps commitments	.62	.66		
	15. Line manager gives no bad advice	.59	.67		
<b>Pressure</b>	16. Much work, little time (R)	.55	.36	.81	.57
	17. A relaxed place	.41	.28		
	18. Calls about job problems (R)	.42	.28		
	19. I never have a day off (R)	.57	.24		
	20. Get burned out (R)	.50	.51		
<b>Support</b>	21. Line manager supports me	.75	.68	.89	.90
	22. Line manager interested in me	.66	.72		
	23. Line manager is behind me 100%	.79	.80		
	24. Line manager easy to talk to	.69	.85		
	25. Line manager backs me up	.75	.77		
<b>Recognition</b>	26. A pat on the back	.69	.69	.83	.84
	27. Hear about mistakes (R)	.56	.72		
	28. Line manager lets me know	.74	.77		
	29. Recognises good job	.71	.81		
	30. Uses me as an example	.44	.30		
<b>Fairness</b>	31. A fair shake from line manager	.68	.70	.82	.82
	32. Reasonable objectives	.53	.45		
	33. Gives no raw deals	.57	.74		
	34. Does not play favourites	.53	.67		
	35. If terminated, deserved it	.52	.54		
<b>Innovation</b>	36. Line manager encourages ideas	.72	.76	.80	.87
	37. Line manager likes new ways	.51	.65		
	38. Improve on methods	.39	.63		
	39. Encourages new solutions	.66	.88		
	40. Encourages new methods	.58	.58		

(Koys et al., 1991, p.274)



#### 4.6.2 THE ALLEN AND MEYER ORGANISATIONAL COMMITMENT SCALE (OCS)

##### (a) *DEVELOPMENT AND RATIONALE OF THE ORGANISATIONAL COMMITMENT SCALE*

Allen et al. (1990) developed their Organisational Commitment Scale in an attempt to reconcile the various conceptualisations of organisational commitment. The OCS reflects a three-dimensional approach to commitment and purports to measure affective, calculative and normative commitment. The *affective* component of organisational commitment refers to employees' emotional attachment to, identification with, and involvement in the organisation. The *continuance* component refers to commitment based on the costs that employees associate with leaving the organisation. The *normative* component refers to employees feelings of obligation to remain with the organisation.

A total count of 51 items were originally generated according to the authors' conceptualisation of organisational commitment. Some of these items were modified versions of those used in other scales, while others were written by the authors. The 15 items of the OCQ (Mowday et al., 1979) were added to these items – resulting in a total of 66 items. Responses to all 66 items were made on seven-point Likert scales (“Strongly disagree” to “Strongly agree”).

A series of decision rules were then employed for purposes of item selection. Items were eliminated under the following conditions:

- When the endorsement proportion was greater than 0.75;
- When the item correlated less with its keyed scale than with one or both of the other scales, and
- When the content of the item was redundant with respect to other items on the scale.

Finally, 24 items were retained that loaded on three dimensions of eight (8) items each.

Hoole (1997) recently adapted and validated the Allen and Meyer Organisational Commitment Scale for South African circumstances. At the time the scale was applied to a sample group of 1484 respondents. Several weak items were deleted during the process, resulting in a total of 20 items. The results indicated that although the OCS could be applied in Southern African contexts, unique factors were obtained.



**(b) DESCRIPTION OF THE ORGANISATIONAL COMMITMENT SCALE**

An adapted version of the Allen and Meyer Organisational Commitment Scale (Hoole, 1997) was used to measure organisational commitment. The Organisational Commitment Scale consists of three largely independent subscales, that is the Affective Commitment Scale (ACS), the Calculative Commitment Scale (CCS) and the Normative Commitment Scale (NCS). These scales are represented as follows:

ACS: items 1 to 7;

CCS: items 8 to 14;

NCS: items 15 to 20.

Factor analysis of the original Affective Commitment and Calculative Commitment scales has been performed on two occasions. In the first study it was found that all items loaded appropriately on two factors (Allen et al., 1990a). A factor analysis performed by McGee and Ford (1987), however, revealed that items from the Continuance Commitment Scale loaded on two separate factors. Those items reflecting the availability of job alternatives loaded on one factor, while items reflecting personal sacrifice associated with leaving the organisation, loaded on a second factor.

McGee et al. (1987) noted that when the number of factors was not specified a priori, four orthogonal factors emerged. This four-factor solution consisted of an affective commitment factor, two continuance commitment factors, and a fourth factor that was not interpreted. The two subscales of the CCS were labelled *Low Perceived Alternatives* and *High Personal Sacrifice*. These subscales correlated significantly with one another ( $r = .37$ ) and correlated significantly, but in opposite directions with the ACS. The former correlated negatively with the ACS, while the latter correlated positively. McGee et al.'s (1987) findings that the CCS was independent of the ACS were confirmed by Allen et al. (1989, 1990b).

Meyer et al. (1990b) found, in support of the above, that the two subscales correlated significantly with one another ( $r = 0.51$ ). Their findings indicated, however, that both subscales correlated significantly and positively with the full scale ( $r = 0.84$  for both scales).

According to Meyer et al. (1990a) it would be erroneous to assume that, based on the above findings, the CCS measures a unitary construct. Nor does it imply the measurement of two



distinguishable constructs, with the *high personal sacrifice* component representing Becker's (1960) side-bet commitment. Rather it should be noted that the analytic procedures used in the above studies were exploratory rather than confirmatory. Moreover, neither factor structure has been shown to replicate consistently across different employee samples. It would further seem that the factors in question do not reflect low perceived alternatives and high personal sacrifice as clearly as McGee et al. (1987) implied.

In response to these concerns, Meyer et al. (1990b) performed confirmatory factor analyses of data obtained from several samples. Their findings provided support for (a) the distinction between affective and continuance commitment, (b) the utility of the ACS and CCS in future research efforts, (c) the existence of differential correlations between the two subscales of the CCS and the ACS, and (d) a negative correlation between the ACS and the CCS.

#### **(c) *RELIABILITY AND VALIDITY***

Table 4.6 presents the item summaries and corrected item score to total score correlations for all items as well as Cronbach's alpha for each scale as reported by Bartlett (1999). Bartlett (1999) reported a total alpha value of 0.87.

The ACS has in the past demonstrated significant correlations with Mowday et al.'s (1979) OCQ, although no correlation was reported between the CCS and the OCQ (Allen et al., 1990). This provided evidence for the convergent validity of the former and the discriminant validity of the latter.

#### **(d) *SCORING***

The adapted version of the OCS consists of 20 items of which 5 items are negatively keyed (4,5,7,8 and 20) and should be reversed. Subjects rate each item on a 7-point Likert scale ranging from "Strongly Agree" to "Strongly Disagree". Dimensions scores are computed by summing across items. A high score therefore indicates high or strong organisational commitment.

**(e) *MOTIVATION FOR UTILISING THE ORGANISATIONAL COMMITMENT SCALE***

The OCS has been used in numerous studies and has proved to possess sound psychometric properties. It correlates significantly and positively with the Mowday et al. (1979) OCQ, indicating that it has high construct validity.

**Table 4.6: Commitment Dimensions and Item-Total Correlations**

<b>DIMENSIONS</b>	<b>ITEM SUMMARY</b>	<b><math>r_{it}</math></b>
<b>Affective Commitment</b>	1. Spend my career with the organisation	.70
	2. Enjoy discussing organisation	.45
	3. Organisation's problems my own	.53
	4. Part of the family (R)	.28
	5. Emotionally attached (R)	.41
	6. Personal meaning	.65
	7. Sense of belonging (R)	.38
<b>Calculative Commitment</b>	8. Afraid if I quit my job (R)	.26
	9. Hard to leave organisation	.55
	10. Too much disruptions	.60
	11. Staying is necessity and desire	.75
	12. Few options	.39
	13. Scarcity of available alternatives	.25
	14. Leaving requires personal sacrifice	.53
<b>Normative Commitment</b>	15. People move too often	.27
	16. Loyalty is important	.55
	17. Not right to leave	.58
	18. Value of remaining loyal is important	.48
	19. People should stay with one organisation	.40
	20. Not sensible to be a company person (R)	.27

The OCS incorporates three separate approaches to organisational commitment and thus allows for the simultaneous consideration of various effects. The ACS is shorter than the OCQ and has the advantage that its items were written to assess only affective orientation towards the organisation and not employees' behaviour or behavioural intentions, such as "intention to stay". It is therefore considered to be particularly appropriate for testing hypotheses regarding the consequences of affective commitment without concern that relationships obtained may reflect overlap in measures of affective commitment and outcomes such as intent to stay.

The CCS is rather unique in the sense that its only counterpart, the scale developed by Hrebiniak et al. (1972) has been challenged both conceptually and empirically.



#### **4.6.3 THE SHORE AND MARTIN MEASURE OF INTENTION TO STAY**

Intention to Stay was measured using a scale that was developed by Hunt, Osborn and Martin (1981) and reported in research by Shore et al. (1989). This measure consists of 4 items and reflects the likelihood of the individual staying with the organisation as opposed to leaving it. Intent to stay was measured by summing across items. Alpha coefficients reported by Shore et al. (1989) were 0.78 and 0.74 for two sample groups.

Although the Organisational Commitment Scale has been used extensively in previous research as well as in South African context, the same could not be said of the Organisational Climate questionnaire (Koys et al., 1991) and the Intention to Stay measure (Shore et al., 1982). Consequently all of the above measures were subjected to confirmatory factor analysis in order to identify a minimal set of variables that accounted for a major portion of the total variance of the original items (Weiss, 1976). Factor analysis is appropriate for studying the structure of a set of variables in terms of the distribution of each variable's variance across a set of underlying factors (Weiss, 1976). The results are reported in Chapter Five.

#### **4.7. RESEARCH METHOD**

In the following section an overview of the research objectives and methods used during the administration and scoring of the relevant measures is presented.

Prior authorisation for the research effort was obtained from the Senior Manager: Human Resources. The questionnaires were accompanied by a cover letter signed by the Senior Manager: Human Resources, which explained the purpose of the research and requested the necessary assistance, as well as complete instructions for completing the questionnaire. Respondents were requested to complete all the relevant items on their own time and in one uninterrupted session. Although English is considered as the official company language, questionnaires were translated in both English and Afrikaans. This was done in order to ensure optimal understanding of all items. Respondents were assured of their anonymity and were encouraged not to discuss their answers with any other individual.

Due to the geographical distance between respondents' work places, as well as the fact that most of them worked cycle of shifts, it was considered impractical to administer the questionnaires during



several work sessions. Rather, questionnaires were distributed to HR Officers (Services and Shifts), the Shaft Accountant Manager and the Senior Technical Trainer respectively. These individuals were responsible for distributing and retrieving all questionnaires in their respective sections. Alternatively questionnaires could be returned directly to the researcher.

## **4.8. METHODS OF ANALYSIS**

### **4.8.1 CONFIRMATORY FACTOR ANALYSIS**

The Organisational Climate Questionnaire and the Organisational Commitment Scale were subjected to confirmatory factor analysis in order to extract the underlying dimensions thereof. According to Weiss (1976) factor analysis is the appropriate method for multivariate covariation analysis whenever the objective is to study the structure of a set of variables or to generate or refute hypotheses about structure. Factor analysis may also be used to reduce a larger set of variables to a smaller set which accounts for a major portion of the observed covariation among the original variables. With confirmatory factor analysis, factor loadings for variables are hypothesised based on previous studies or on relevant theory (Kline, 1994). Confirmatory factor analysis then proceeds to fit these loadings in the target matrix as loosely as possible. The following objections to this method have been pointed out:

- There is an infinity of mathematically equivalent solutions;
- Factor analysts frequently disagree as to what are the most important factors in the field;
- It is difficult to replicate factor analyses; and
- The usefulness of the method is restricted to the input that is entered.

### **4.8.2 HIERARCHICAL CLUSTER ANALYSIS**

Following the suggestions of James (1982), it was considered essential that perceptual agreement be established prior to the aggregation of climate scores. Consensus is believed to occur when the mean climate scores of individuals within the appropriate unit of analysis vary minimally (Tustin, 1993). The smaller the variation, the stronger the argument that group climate has occurred. The latter argument has led to the notion of collective climates.



Joyce et al. (1982) has warned that climate scores aggregated across formal organisational units will display little or no reliability unless perceptual consensus has been established beforehand. Subsequently, the computation of climate scores with respect to a priori formal groups may lead to insignificant relationships with outcome variables.

The existence of collective or subgroup climates was determined by means of hierarchical cluster analytical techniques. This method was used in previous research on organisational climate by Joyce et al. (1984) and Tustin (1993). Cluster analytic methods are appropriate for the categorical placement of logically related variables or objects into subsets, i.e. clusters (Weiss, 1976). Each variable is considered as a unit and grouped together with other variables to which it is logically related. Clusters resulting from this procedure represent homogeneous subgroups of variables, implying that these variables are more similar to each other than they are to other variables in the same matrix of inter-associations.

Ward's (1963) method, a hierarchical clustering technique that minimises within cluster variance while maximising the separation between clusters, was utilised for the purpose of the present study. This method is possibly the best hierarchical clustering algorithm (Joyce et al., 1982). It is available in computer-based form only due to the complexities involved in the clustering process.

The logic underlying the method is similar to that of McQuitty's (1960) early methods, however the decision rules with respect to cluster forming are considered as more complex. Each step in the pyramidal tree yields a number of clusters smaller by one than the previous step. In the first step, all individuals are considered as clusters. At the second step, the two most similar individuals would be combined to yield a number of clusters smaller by one than the previous step. Thereafter the two most similar "clusters" from step two are combined. This process is repeated at each step until all observations are combined into one super-cluster resulting in a pyramidal tree-structure.

Ward's (1963) method provides the researcher with an index of cluster homogeneity at each step that reflects the "tightness" of the clusters at that stage in the pyramidal structure. The index serves as an "error function", indicating at which point the process should be terminated. The tree-structure represents the structure of the original variables to the extent that: (a) the variables within a cluster are similar to each other and (b) each cluster bears some dissimilarity to the other clusters.



### 4.8.3 CANONICAL CORRELATIONAL ANALYSIS

Since the second alternative hypothesis postulated that a relationship exists between two multi-dimensional variables, canonical correlational analysis was selected as the appropriate analytical method. The collective climate dimensions were treated as independent variables, and the organisational commitment dimensions as dependent variables.

Canonical correlational analysis is appropriate whenever multiple independent, as well as dependent, variables are being considered (Kerlinger, 1986). The goal is to analyse the relationships between two sets of variables (Chapter Six). Canonical analysis may expose more than one possible way that the two sets of variables are related. The relationship between the variables is expressed by means of a canonical correlation ( $r_{ci}$ ), which, incidentally, equals the square root of the eigen value. The canonical correlation is interpreted as an ordinary Pearson product-moment correlation coefficient. When it is squared, it represents the shared variance between the two variables.

The method discussed above has some limitations that should be noted. Tabachnick and Fidell (1989) warn that procedures that maximise correlation do not necessarily maximise interpretation of pairs of canonical variates – therefore interpretation may be difficult to execute. Moreover, canonical correlation analysis does not lend itself to oblique rotation solutions – only orthogonal solutions are available.

### 4.8.4 STANDARD MULTIPLE REGRESSION ANALYSIS

Multiple regression analysis was employed in order to test the relationship between collective climate and organisational commitment respectively, with intention to stay.

## 4.9. CONCLUSION

In this chapter the research problem and subsequent hypotheses were formulated. A brief discussion of the sample group and its characteristics was presented. Following this, the three measuring instruments employed in the study were described in terms of their development, purpose and reliability. Finally the research objectives and various analytical methods used to achieve them were outlined.



## **CHAPTER FIVE**

### **PRESENTATION OF RESULTS**

#### **5.1. INTRODUCTION**

In the previous chapter the various methods of analysis and the reasons therefore were discussed. In the present chapter the results are presented with respect to the research problem and various hypotheses that were formulated. Firstly the reliability and factor analytical structure of the various measures used is described. Secondly the descriptive data is summarised and presented. Finally the results of the hierarchical cluster, canonical correlation and multiple regression analysis are presented.

#### **5.2. ITEM ANALYSIS AND RELIABILITY OF MEASURES**

The term item analysis refers to a loosely structured group of statistics that can be computed for each item in a test. According to Smit (1991) it is desirable to maximise the internal consistency of any composite test of scale. High internal consistency is characterised by high inter-item correlations within a given scale. Examinations of these inter-item correlations may assist the researcher in identifying poorly constructed test items.

Convention dictates that a sample should equal 5 times the number of test items of the measuring instrument (Bartlett, 1999). A total of 236 usable questionnaires had been returned. The adapted version of the Allen and Meyer organisational commitment scale consists of 20 items, while the Koys and DeCottiis organisational climate questionnaire consists of 40 items. The Shore and Martin measure of intent to stay consists of 4 items. Based on the sample size and the number of items in the various measures it was concluded that the above requirement had been met.

Statistical properties of the scales were investigated by means of SAS (SAS Institute, Inc., 1988). Each of the scales was analysed for internal consistency and factor structure by means of item analysis and principal components analysis. The item summaries and corrected item score to total score correlations for all items as well as Cronbach's alpha for the organisational climate and organisational commitment scales have been presented in Tables 5.1 and 5.2.



**Table 5.1: Climate Dimensions, Item-Total Correlations, Coefficients Alpha**

DIMENSIONS	ITEM SUMMARY	$r_{it}$	Alpha	Alpha if deleted
<b>Autonomy</b>	1. I make most decisions	.75	.88	.85
	2. I determine my own work procedure	.69		.86
	3. I schedule my own work	.67		.87
	4. I set standards	.73		.85
	5. I organise my work	.77		.85
<b>Cohesion</b>	6. People help each other	.67	.84	.79
	7. People get along	.61		.81
	8. Personal interest	.69		.79
	9. A lot of team spirit	.77		.76
	10. A lot in common	.47		.85
<b>Trust</b>	11. Line manager keeps things private	.26	.47	.91
	12. Line manager has integrity	.61		.35
	13. I can level with my line manager	.60		.35
	14. Line manager keeps commitments	.51		.38
	15. Line manager gives no bad advice	.38		.42
<b>Pressure</b>	16. Much work, little time (R)	.51	.57	.42
	17. A relaxed place	-.24		.77
	18. Calls about job problems (R)	.41		.47
	19. I never have a day off (R)	.59		.34
	20. Get burned out (R)	.55		.39
<b>Support</b>	21. Line manager supports me	.84	.94	.93
	22. Line manager interested in me	.85		.93
	23. Line manager is behind me 100%	.88		.92
	24. Line manager easy to talk to	.85		.92
	25. Line manager backs me up	.81		.94
<b>Recognition</b>	26. A pat on the back	.68	.80	.72
	27. Hear about mistakes (R)	.13		.88
	28. Line manager lets me know	.67		.72
	29. Recognises good job	.80		.67
	30. Uses me as an example	.67		.72
<b>Fairness</b>	31. A fair shake from line manager	.78	.86	.80
	32. Reasonable objectives	.67		.83
	33. Gives no raw deals	.81		.80
	34. Does not play favourites	.51		.88
	35. If terminated, deserved it	.68		.83
<b>Innovation</b>	36. Line manager encourages ideas	.83	.92	.90
	37. Line manager likes new ways	.91		.91
	38. Improve on methods	.91		.91
	39. Encourages new solutions	.90		.90
	40. Encourages new methods	.91		.91

Reliability coefficients ranging from 0.47 to 0.94 have been reported for the Koys and DeCottis questionnaire, indicating satisfactory internal consistency across items. Cronbach's alpha coefficient is particularly useful when determining the internal consistency (reliability) of an instrument. This index indicates the degree to which items draw on the same characteristics. A high level of internal



consistency implies a high degree of generalisability of items within the test measure (Huysamen, 1993). A Cronbach Alpha value is considered significant when it exceeds 0.5.

**Table 5.2: Commitment Dimensions, Item-Total Correlations, Coefficients Alpha**

DIMENSIONS	ITEM SUMMARY	$r_{it}$	Alpha	Alpha if deleted
<b>Affective Commitment</b>	1. Spend my career with the organisation	.49	.81	.79
	2. Enjoy discussing organisation	.69		.76
	3. Organisation's problems my own	.58		.78
	4. Part of the family (R)	.51		.79
	5. Emotionally attached (R)	.43		.80
	6. Personal meaning	.62		.77
	7. Sense of belonging (R)	.51		.79
<b>Calculative Commitment</b>	8. Afraid if I quit my job (R)	-.18	.76	.85
	9. Hard to leave organisation	.50		.72
	10. Too much disruptions	.69		.68
	11. Staying is necessity and desire	.65		.69
	12. Few options	.55		.71
	13. Scarcity of available alternatives	.62		.70
	14. Leaving requires personal sacrifice	.66		.68
<b>Normative Commitment</b>	15. People move too often	.61	.72	.80
	16. Loyalty is important	.80		.78
	17. Not right to leave	.73		.79
	18. Value of remaining loyal is important	.65		.78
	19. People should stay with one organisation	.46		.79
	20. Not sensible to be a company person (R)	-.28		.87
<b>Intention to Stay</b>	1. I will leave the organisation (R)	.50	.64	.50
	2. It is unlikely that I will consider leaving	.42		.56
	3. I prefer not to work here (R)	.37		.60
	4. Spending my career at (organisation) is important	.38		.59

Reliability coefficients ranging from 0.72 to 0.81 were reported for the Organisational Commitment Scale. Negative correlations were reported for items 8 and 20. The latter was dropped from the Organisational Commitment Scale on the basis of what the alpha coefficient would be if that item was deleted. The Shore and Martin measure of Intent to Stay demonstrated moderate internal consistency ( $\alpha = 0.64$ ).

### 5.3. FACTOR ANALYTICAL STRUCTURE OF MEASURES

#### 5.3.1 THE KOYS AND DECOTTIIS ORGANISATIONAL CLIMATE QUESTIONNAIRE

The factor analysis results for the organisational climate measure are reported in Table 5.3.

**Table 5.3: Factor analytical structure of the Koys and DeCottiis Organisational Climate questionnaire**

Summary	FACTORS							
	Auto-nomy	Cohe-sion	Trust	Pres-sure	Sup-port	Recog-nition	Fair-ness	Inno-vation
1. I make most decisions	.77							
2. I determine own work procedure	.71							
3. I schedule my own work	.78							
4. I set standards	.75							
5. I organise my work	.80							
6. People help each other		.86						
7. People get along		.84						
8. Personal interest		.80						
9. A lot of team spirit		.84						
10. A lot in common		.67						
11. Line manager keeps things private			.42					
12. Line manager has integrity			.91					
13. I can level with my line manager			.95					
14. Line manager keeps commitments			.90					
15. Line manager gives no bad advice			.81					
16. Much work, little time (R)				.71				
17. A relaxed place				.16				
18. Calls about job problems (R)				.69				
19. I never have a day off (R)				.80				
20. Get burned out (R)				.82				



		FACTORS							
	Summary	Auto- nomy	Cohe- sion	Trust	Pres- sure	Sup- port	Recog- nition	Fair- ness	Inno- vation
21.	Line manager supports me					.88			
22.	Line manager interested in me					.85			
23.	Line manager is behind me 100%					.89			
24.	Line manager easy to talk to					.92			
25.	Line manager backs me up					.83			
26.	A pat on the back						.85		
27.	Hear about mistakes (R)						.43		
28.	Line manager lets me know						.77		
29.	Recognises good job						.90		
30.	Uses me as an example						.72		
31.	A fair shake from line manager							.85	
32.	Reasonable objectives							.83	
33.	Gives no raw deals							.55	
34.	Does not play favourites							.75	
35.	If terminated, deserved it							.80	
36.	Line manager encourages ideas								.89
37.	Line manager likes new ways								.87
38.	Improve on methods								.82
39.	Encourages new solutions								.90
40.	Encourages new methods								.87

Inferences concerning the construct validity of a measure are usually based on three aspects. They are (a) the number of factors that were extracted, (b) the variance explained by each factor and (c) the size of the communalities for each item (Smith, Barnard & Steyn, 1988). It is apparent that all items excluding item 17 had loadings greater than 0.40. All factors that were isolated demonstrated Eigen values greater than 1.00. The following results were obtained for each dimension:

**(a) Autonomy:**

One factor was extracted that explained 59% of the total variance. Communalities were computed for all items and varied between 0.51 and 0.65.

**(b) Cohesion:**

One factor was extracted that explained 55% of the total variance. Communalities were computed and varied between 0.09 and 0.73.

**(c) Trust:**

One factor was extracted that explained 66% of the total variance. Communalities were computed for all items and varied between 0.17 and 0.85.

**(d) Pressure:**

Two factors were extracted for this dimension. An orthogonal solution provided the best fit after rotation in accordance with the Varimax method. Communalities were computed for all items and varied between 0.49 and 0.98. The first factor explained 55% of the total variance, while the second accounted for 66%. The correlation matrix is presented in Table 5.4.

**Table 5.4: Correlation matrix of the Pressure Dimension**

Item	Summary	Factor 1	Factor 2
20	Get burned out (R)	.82	.04
19	I never have a day off (R)	.80	-.20
16	Much work, little time (R)	.71	-.00
18	Calls about job problems (R)	.69	-.04
17	A relaxed place	.16	.98



**(e) Support:**

One factor was extracted that explained 76% of the total variance. Communalities were computed for all items and varied between 0.69 and 0.84.

**(f) Recognition:**

One factor was extracted that explained 57% of the total variance. Communalities were computed for all items and varied between 0.19 and 0.81.

**(g) Fairness:**

One factor was extracted that explained 58% of the total variance. Communalities were computed for all items and varied between 0.30 and 0.73.

**(h) Innovation:**

One factor was extracted that explained 76% of the total variance. Communalities were computed for all items and varied between 0.75 and 0.81.

### **5.3.2 THE ALLEN AND MEYER ORGANISATIONAL COMMITMENT SCALE**

The factor analysis results for the organisational commitment measure are reported in Table 5.5. All factors isolated had Eigen values greater than 1.00. All items had loadings greater than 0.40 excluding item 8.

The following results were obtained for each dimension:

**(a) Affective Commitment:**

Two factors were extracted for this dimension. An orthogonal solution provided the best fit after rotation in accordance with the Varimax method. Communalities were computed for all items for all items and varied between 0.67 and 0.78. The first factor explained 50% of the total variance, while the

second accounted for 74%. Analysis of the correlation matrix (Table 5.6) revealed that items three (3), one (1), six (6) and two (2) loaded on the first factor, while items four (4), five (5) and seven (7) loaded on the second factor.

**Table 5.5: Factor analytical structure of the Allen and Meyer Organisational Commitment Scale**

Item	Summary	FACTORS		
		ACS	CCS	NCS
1.	Spend my career with the organisation	.77		
2.	Enjoy discussing organisation	.74		
3.	Organisation's problems my own	.77		
4.	Part of the family (R)	.60		
5.	Emotionally attached (R)	.61		
6.	Personal meaning	.80		
7.	Sense of belonging (R)	.66		
8.	Afraid if I quit my job (R)		.07	
9.	Hard to leave organisation		.74	
10.	Too much disruptions		.72	
11.	Staying is necessity and desire		.73	
12.	Few options		.70	
13.	Scarcity of available alternatives		.75	
14.	Leaving requires personal sacrifice		.75	
15.	People move too often			.67
16.	Loyalty is important			.79
17.	Not right to leave			.75
18.	Value of remaining loyal is important			.79
19.	People should stay with one organisation			.65
20.	Not sensible to be a company person (R)			*

\* Item 20 was excluded in further analysis due to the weak item-total correlation that was obtained.



**(b) Calculative Commitment:**

Two factors were extracted for this dimension. An orthogonal solution provided the best fit after rotation in accordance with the Varimax method. Communalities were computed for all items and varied between 0.55 and 0.75. The first factor explained 46% of the total variance, while the second accounted for 61%. As illustrated in Table 5.7 the correlation matrix obtained for the CCS revealed that only item 8 loaded on the second factor.

**Table 5.6: Correlation matrix of the ACS (Affective Commitment Scale)**

Item	Summary	Factor 1	Factor 2
3	Organisation's problems my own	.88	.10
1	Spend my career with the organisation	.84	.16
6	Personal meaning	.83	.22
2	Enjoy discussing organisation	.81	.14
4	Part of the family (R)	.12	.87
5	Emotionally attached (R)	.13	.86
7	Sense of belonging (R)	.22	.83

**Table 5.7: Correlation matrix of the CCS (Calculative Commitment Scale)**

Item	Summary	Factor 1	Factor 2
14	Leaving requires personal sacrifice	.75	.00
13	Scarcity of available alternatives	.75	-.29
9	Hard to leave organisation	.74	.18
11	Staying is necessity and desire	.73	.11
10	Too much disruptions	.72	.26
12	Few options	.70	-.38
8	Afraid if I quit my job (R)	.07	.86

**(c) Normative Commitment:**

Only one factor was extracted for the Normative Commitment Scale. This factor explained 54% of the variance. Communalities were computed for all items and varied between 0.43 and 0.63.

**5.3.3 THE SHORE AND MARTIN MEASURE OF INTENT TO STAY**

One factor exceeded the Eigen criterion and was extracted for the above measure. The factor explained 60% of the total variance. Communalities were computed and varied between 0.56 and 0.63.

**5.4. DESCRIPTIVE DATA**

The mean dimension scores and standard deviations for organisational climate, organisational commitment and intent to stay have been presented in Tables 5.8 to 5.19.

**5.4.1 ORGANISATIONAL CLIMATE**

Due to the methodological issues pertaining to the aggregation of climate, no departmental climate scores have been computed and each department's data is presented separately. Rather, collective climate scores were calculated by averaging the mean dimension scores reported for each collective climate. This was possible as all dimensions of the Organisational Climate Questionnaire were comprised of an equal number of items.

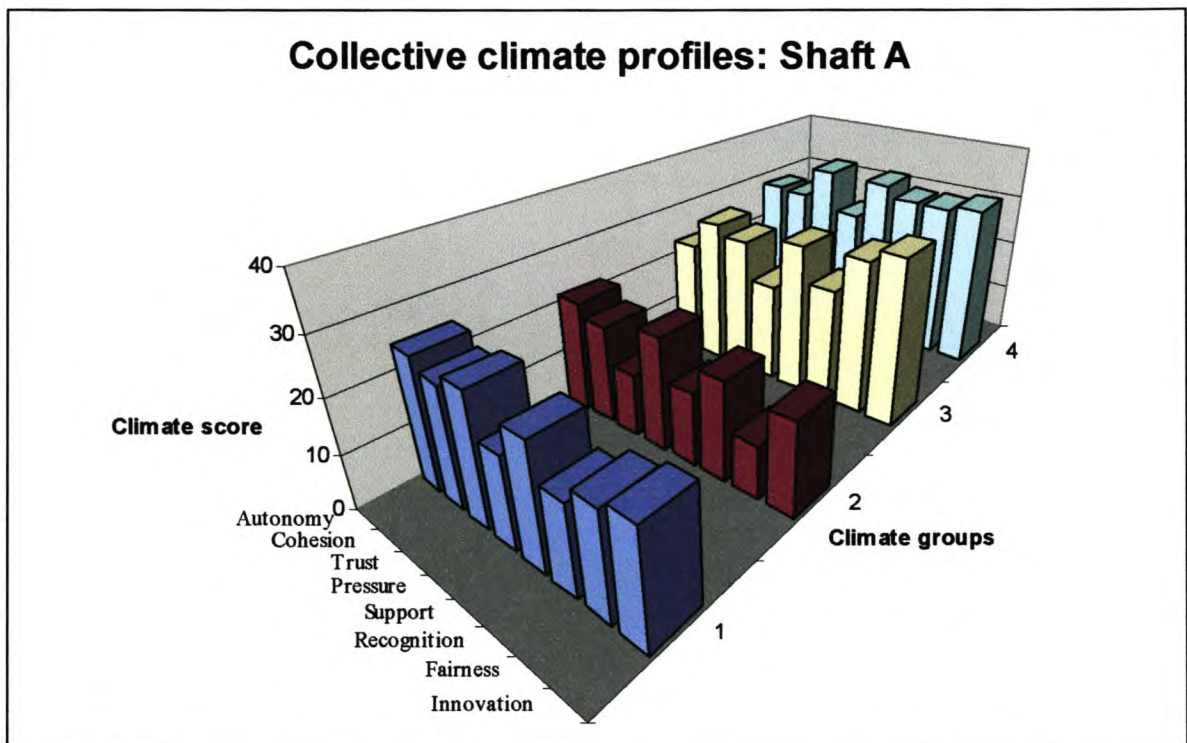
Mean total climate scores ranged from 13.94 to 30.09. Climates 4 (Shaft A), 12 (Shaft E), 6 (Shaft B), 33 (Shaft J) and 15 (Shaft G) achieved the 5 highest collective climate scores, in that order. In contrast, climates 24 (Shaft J), 7 (ShaftB), 17 (ShaftH), 27 (Shaft L) and 2 (Shaft A) achieved the 5 lowest collective climate scores.

An analysis of the maximum and minimum organisational climate dimension scores revealed that eleven of the climate groups (33%) scored highest in Autonomy. The average score on this dimension ranged from 14.1 to 34.33. Only one climate group (climate 29, Shaft L) scored lowest in Autonomy. Eight (24%) climate groups scored highest in Trust, six (18%) scored highest in Innovation and four (12%) scored highest in Support.



**Table 5.8: Descriptive statistics - Shaft A**

Dimensions	Climate 1 (n = 15)		Climate 2 (n = 6)		Climate3 (n = 6)		Climate 4 (n = 6)	
	$\bar{X}$	S	$\bar{X}$	S	$\bar{X}$	S	$\bar{X}$	S
Autonomy	24.47	4.24	21.33	1.03	22.67	10.56	27.83	4.17
Cohesion	22.22	4.07	18.75	1.56	28.61	6.72	27.22	2.51
Trust	24.13	4.19	12.00	1.90	26.67	4.55	33.50	2.35
Pressure	16.53	7.59	21.33	4.37	19.33	3.98	25.33	3.01
Support	22.33	5.11	13.67	3.56	29.17	4.12	33.17	2.04
Recognition	16.07	3.86	18.67	1.37	22.33	5.75	30.83	1.72
Fairness	19.00	4.66	10.00	1.10	29.83	4.88	30.83	3.66
Innovation	20.53	4.66	17.33	2.94	32.17	2.64	32.00	2.53
ACS	28.93	7.65	23.17	1.72	39.67	9.67	37.67	10.23
CCS	26.67	7.14	20.17	0.75	38.17	10.59	30.00	8.88
NCS	25.13	6.53	17.00	1.79	29.33	3.72	23.00	10.08
Intent to Stay	12.27	2.81	12.50	0.84	18.00	1.90	16.67	2.58
$\bar{X}$ (Climate)	20.66		16.64		26.35		30.09	
S (Climate)	3.22		4.27		4.44		2.97	

**Figure 5.1 Collective climate profiles Shaft A**

**Table 5.9: Descriptive statistics - Shaft B**

Dimensions	Climate 5 (n = 8)		Climate 6 (n = 16)		Climate 7 (n = 3)	
	$\bar{X}$	S	$\bar{X}$	S	$\bar{X}$	S
Autonomy	26.88	4.29	30.81	2.83	25.67	7.64
Cohesion	20.52	4.90	27.97	6.11	15.83	6.29
Trust	26.50	4.04	31.44	3.33	12.33	4.73
Pressure	18.13	6.20	23.13	5.40	18.00	6.00
Support	27.75	3.58	32.00	2.68	11.00	2.00
Recognition	23.75	4.50	27.50	4.70	10.33	4.04
Fairness	23.63	4.27	30.25	3.04	9.33	5.86
Innovation	24.88	2.42	30.31	3.44	9.00	6.93
ACS	30.25	11.18	41.38	6.80	25.00	3.00
CCS	25.13	7.51	33.06	8.08	26.00	19.97
NCS	23.38	1.92	24.81	7.30	14.00	7.94
Intent to Stay	13.63	2.56	15.75	2.54	9.33	3.06
$\bar{X}$ (Climate)	24.01		29.18		13.94	
S (Climate)	3.30		2.90		5.70	

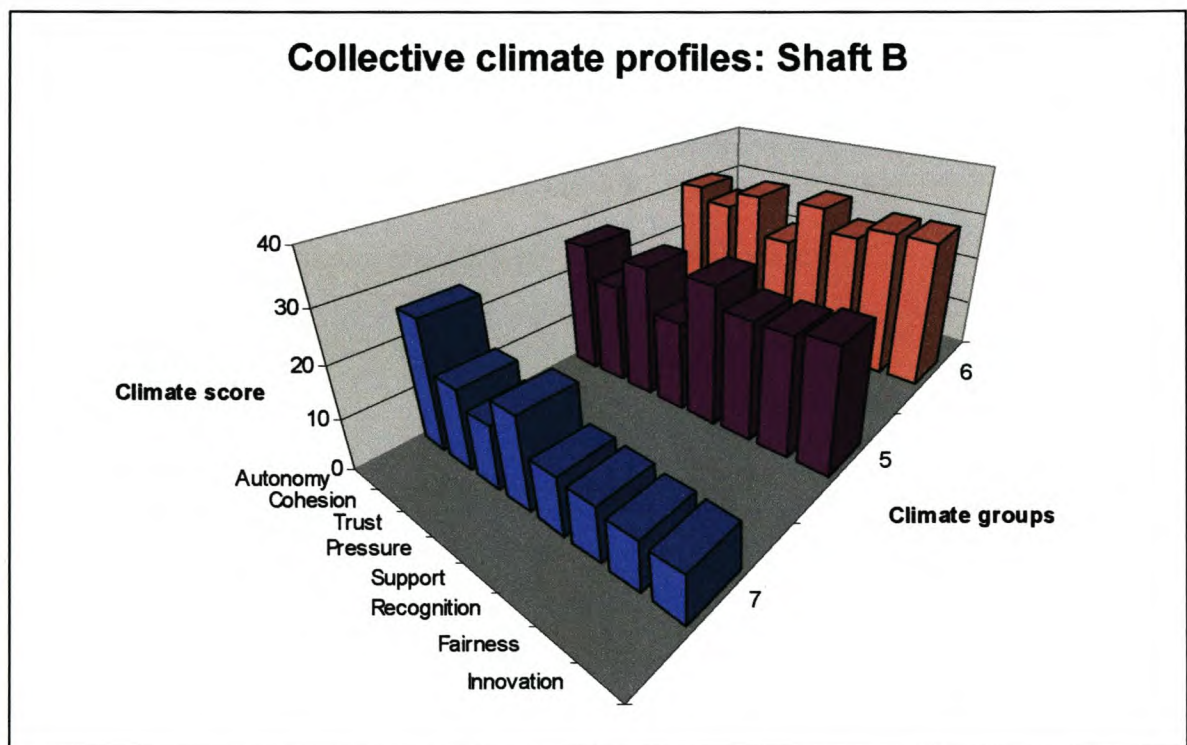

**Figure 5.2 Collective climate profiles Shaft B**



Table 5.10: Descriptive statistics - Shaft C

Dimensions	Climate 22 (n = 5)	
	$\bar{X}$	S
Autonomy	26.40	2.97
Cohesion	22.00	5.85
Trust	27.20	5.67
Pressure	16.40	8.91
Support	24.80	7.05
Recognition	20.40	6.39
Fairness	22.60	5.94
Innovation	21.80	4.55
ACS	29.40	16.04
CCS	24.60	6.27
NCS	19.80	9.83
Intent to Stay	12.60	5.37
$\bar{X}$ (Climate)	22.70	
S (Climate)	3.48	

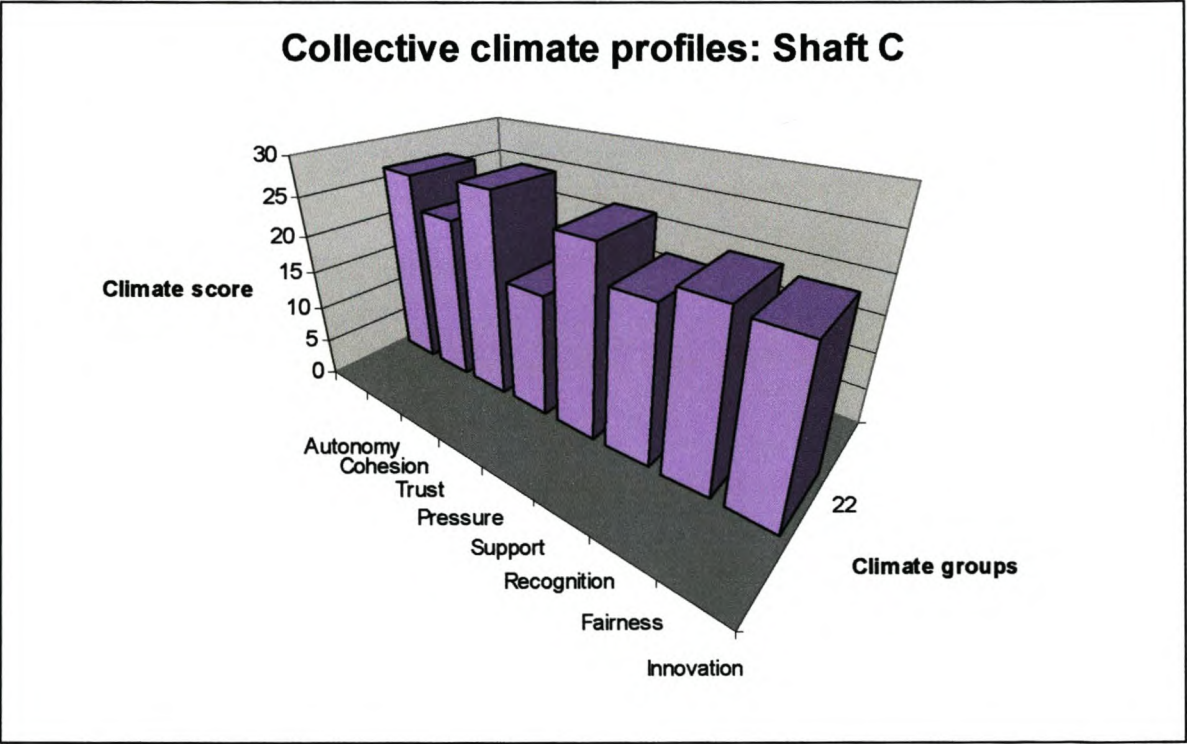
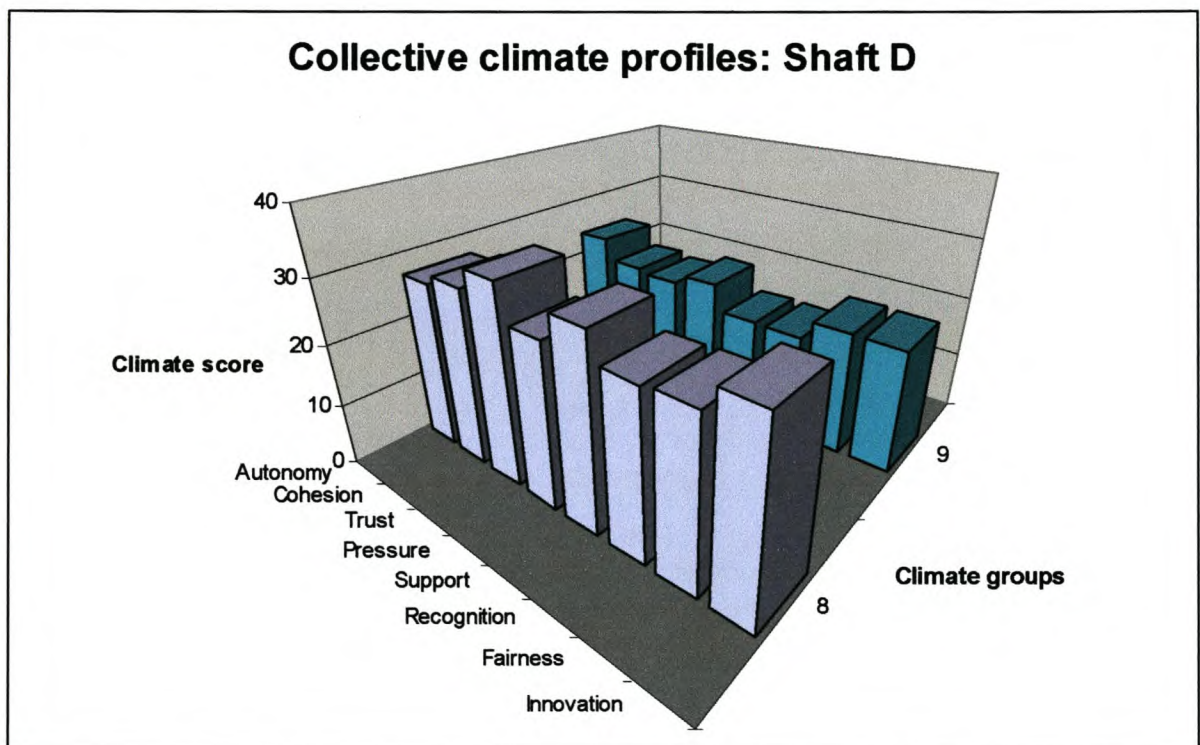


Figure 5.3 Collective climate profiles Shaft C

**Table 5.11: Descriptive statistics - Shaft D**

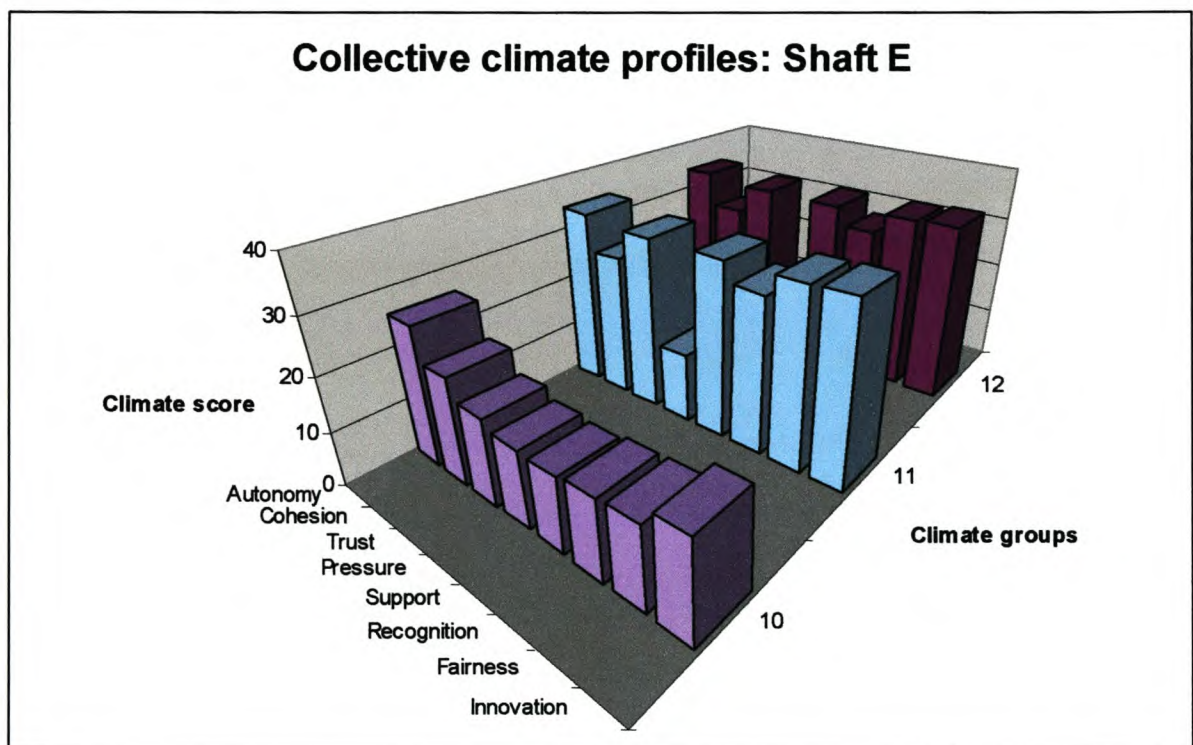
Dimensions	Climate 8 (n = 3)		Climate 9 (n = 11)	
	$\bar{X}$	S	$\bar{X}$	S
Autonomy	27.00	3.61	23.91	6.07
Cohesion	28.61	0.48	20.23	5.08
Trust	31.67	1.53	19.73	5.78
Pressure	26.00	3.61	21.45	6.47
Support	30.33	0.58	17.18	3.92
Recognition	26.00	3.61	17.09	4.35
Fairness	26.33	5.03	20.36	4.32
Innovation	29.67	3.51	20.27	3.47
ACS	38.67	3.79	29.36	4.11
CCS	33.33	9.71	28.64	7.15
NCS	20.33	9.07	20.91	4.66
Intent to Stay	16.67	2.31	12.09	2.12
$\bar{X}$ (Climate)	28.20		20.03	
S (Climate)	2.19		2.21	


**Figure 5.4 Collective climate profiles Shaft D**



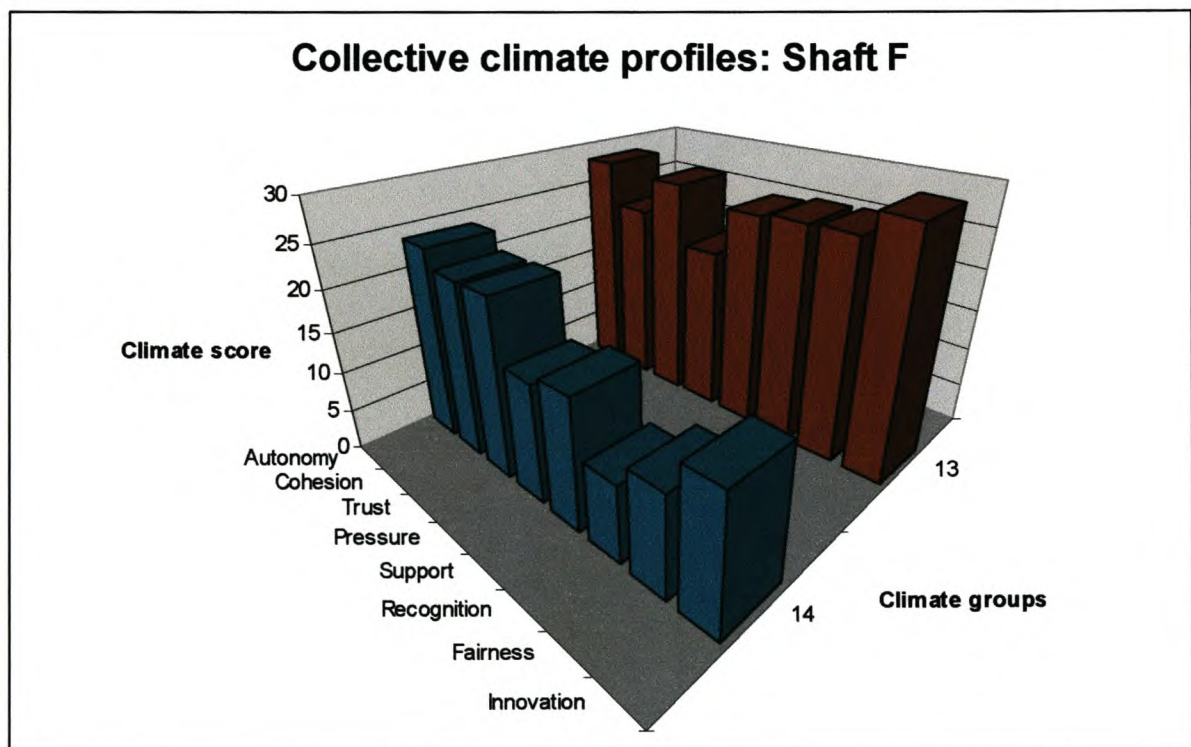
**Table 5.12: Descriptive statistics - Shaft E**

Dimensions	Climate 10 (n = 4)		Climate 11 (n = 5)		Climate 12 (n = 5)	
	$\bar{X}$	S	$\bar{X}$	S	$\bar{X}$	S
Autonomy	26.00	4.16	21.00	3.08	34.33	1.15
Cohesion	19.79	6.43	22.83	4.11	27.50	3.82
Trust	16.00	1.41	24.40	5.55	33.33	2.89
Pressure	14.25	5.74	18.20	6.98	13.33	5.03
Support	13.75	4.65	24.40	1.14	33.33	2.89
Recognition	14.50	4.73	20.40	1.67	29.67	3.06
Fairness	15.00	2.58	26.60	5.13	33.67	2.31
Innovation	18.00	2.45	23.00	1.58	34.00	1.73
ACS	28.00	4.16	29.80	6.30	37.67	9.24
CCS	34.25	9.57	22.20	7.40	26.00	2.65
NCS	21.75	10.08	24.40	3.65	26.67	4.73
Intent to Stay	14.75	5.32	12.60	0.89	16.67	3.51
$\bar{X}$ (Climate)	17.16		22.60		29.90	
S (Climate)	4.12		2.66		7.12	


**Figure 5.5 Collective climate profiles Shaft E**

**Table 5.13: Descriptive statistics - Shaft F**

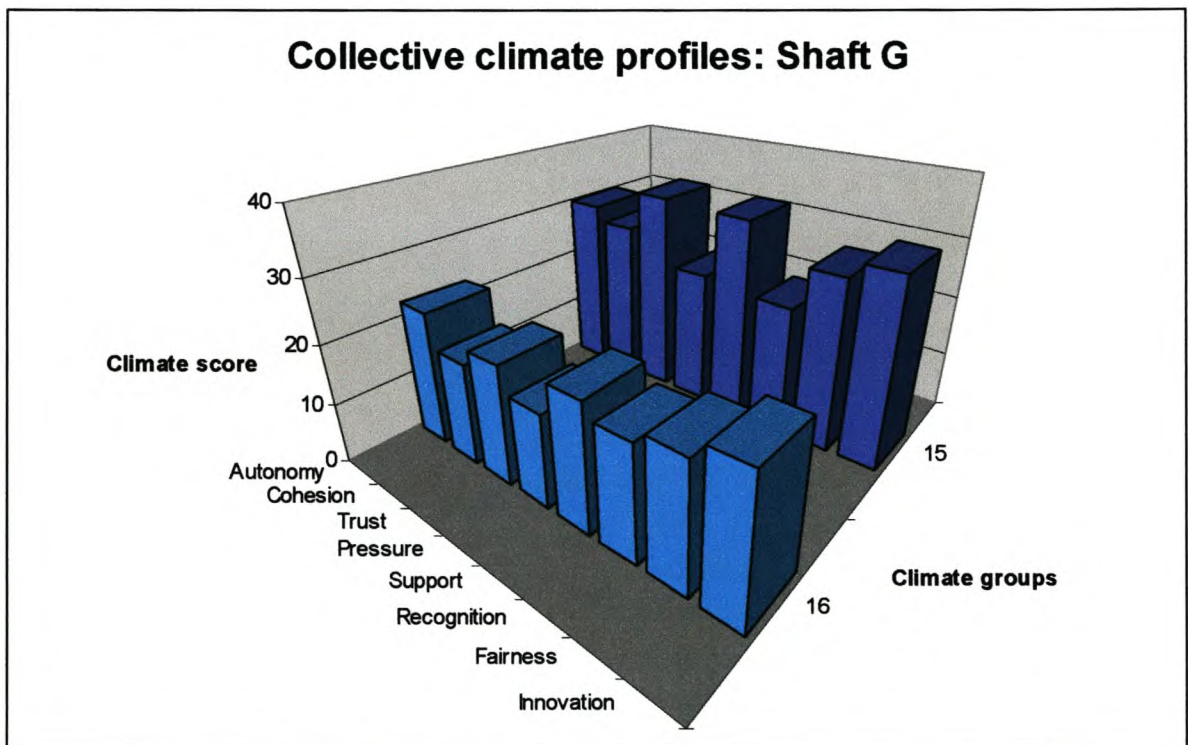
Dimensions	Climate 13 (n = 6)		Climate 14 (n = 6)	
	$\bar{X}$	S	$\bar{X}$	S
Autonomy	28.17	1.83	23.50	5.86
Cohesion	22.92	4.11	21.53	7.22
Trust	27.50	4.46	21.67	7.87
Pressure	20.33	6.09	14.33	6.65
Support	26.17	2.40	15.67	6.12
Recognition	26.67	2.25	9.17	5.00
Fairness	26.83	1.94	12.00	5.83
Innovation	29.50	3.02	15.83	8.68
ACS	35.33	6.19	24.00	11.87
CCS	29.33	10.54	18.67	10.13
NCS	24.67	6.74	19.83	6.08
Intent to Stay	14.67	3.50	9.50	4.32
$\bar{X}$ (Climate)	26.01		16.71	
S (Climate)	2.98		5.08	


**Figure 5.6 Collective climate profiles Shaft F**



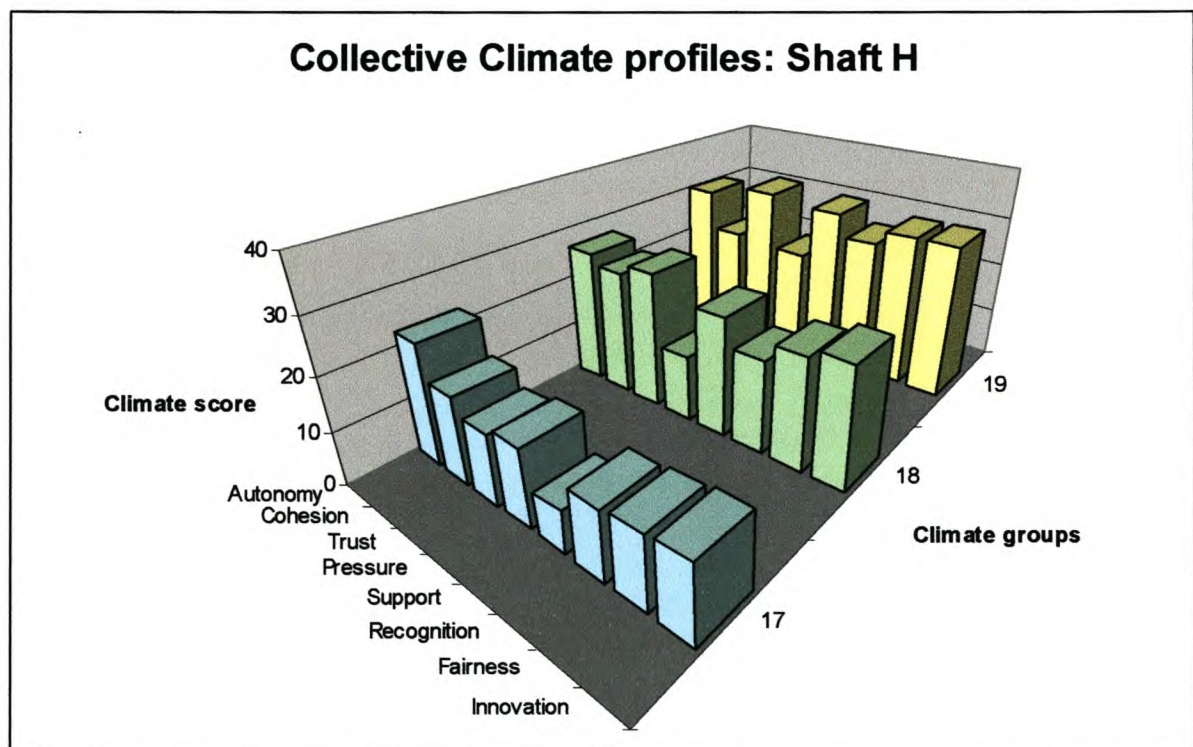
**Table 5.14: Descriptive statistics - Shaft G**

Dimensions	Climate 15 (n = 4)		Climate 16 (n = 10)	
	$\bar{X}$	S	$\bar{X}$	S
Autonomy	30.00	1.41	22.30	6.50
Cohesion	27.50	4.66	16.75	7.19
Trust	34.00	0.82	19.70	4.00
Pressure	22.75	9.07	15.40	6.22
Support	33.75	1.26	20.80	4.92
Recognition	21.75	7.93	18.40	3.41
Fairness	28.75	5.97	20.30	4.27
Innovation	31.25	4.50	22.90	3.63
ACS	37.00	9.42	29.20	8.92
CCS	31.00	12.91	26.10	8.60
NCS	23.25	10.40	18.40	7.17
Intent to Stay	13.50	1.73	12.10	3.60
$\bar{X}$ (Climate)	28.72		19.57	
S (Climate)	4.58		2.60	

**Figure 5.7 Collective climate profiles Shaft G**

**Table 5.15: Descriptive statistics - Shaft H**

Dimensions	Climate 17 (n = 3)		Climate 18 (n = 6)		Climate 19 (n = 9)	
	$\bar{X}$	S	$\bar{X}$	S	$\bar{X}$	S
Autonomy	22.67	6.66	26.50	2.59	30.11	2.85
Cohesion	16.39	0.96	24.44	5.62	22.04	6.95
Trust	13.33	5.69	26.67	3.01	32.67	2.40
Pressure	14.67	8.33	12.83	4.62	21.22	6.34
Support	8.00	2.65	23.33	4.76	31.78	2.64
Recognition	12.67	2.08	18.00	3.58	27.33	2.18
Fairness	13.33	4.73	21.50	4.51	30.33	3.12
Innovation	14.00	4.00	23.33	4.27	30.44	3.05
ACS	25.67	6.03	36.33	5.20	35.22	10.88
CCS	27.67	6.51	33.33	9.69	32.56	12.29
NCS	24.33	2.08	20.83	4.07	25.11	6.29
Intent to Stay	14.33	3.51	15.17	1.60	14.89	4.37
$\bar{X}$ (Climate)	14.38		22.08		28.24	
S (Climate)	4.12		4.66		4.37	


**Figure 5.8 Collective climate profiles Shaft H**



**Table 5.16: Descriptive statistics - Shaft I**

Dimensions	Climate 20 (n = 6)		Climate 21 (n = 5)	
	$\bar{X}$	S	$\bar{X}$	S
Autonomy	28.00	6.42	22.40	8.96
Cohesion	23.33	6.37	16.83	3.84
Trust	30.17	2.79	17.40	7.37
Pressure	15.00	2.68	23.20	4.55
Support	26.50	5.58	20.20	6.61
Recognition	25.33	3.39	13.20	4.09
Fairness	27.33	1.86	20.20	3.11
Innovation	28.33	3.39	25.80	6.61
ACS	29.83	2.14	27.60	9.48
CCS	32.17	3.43	23.40	10.45
NCS	25.33	6.15	22.60	5.18
Intent to Stay	15.00	2.10	12.40	3.78
$\bar{X}$ (Climate)	25.50		19.90	
S (Climate)	4.71		4.01	

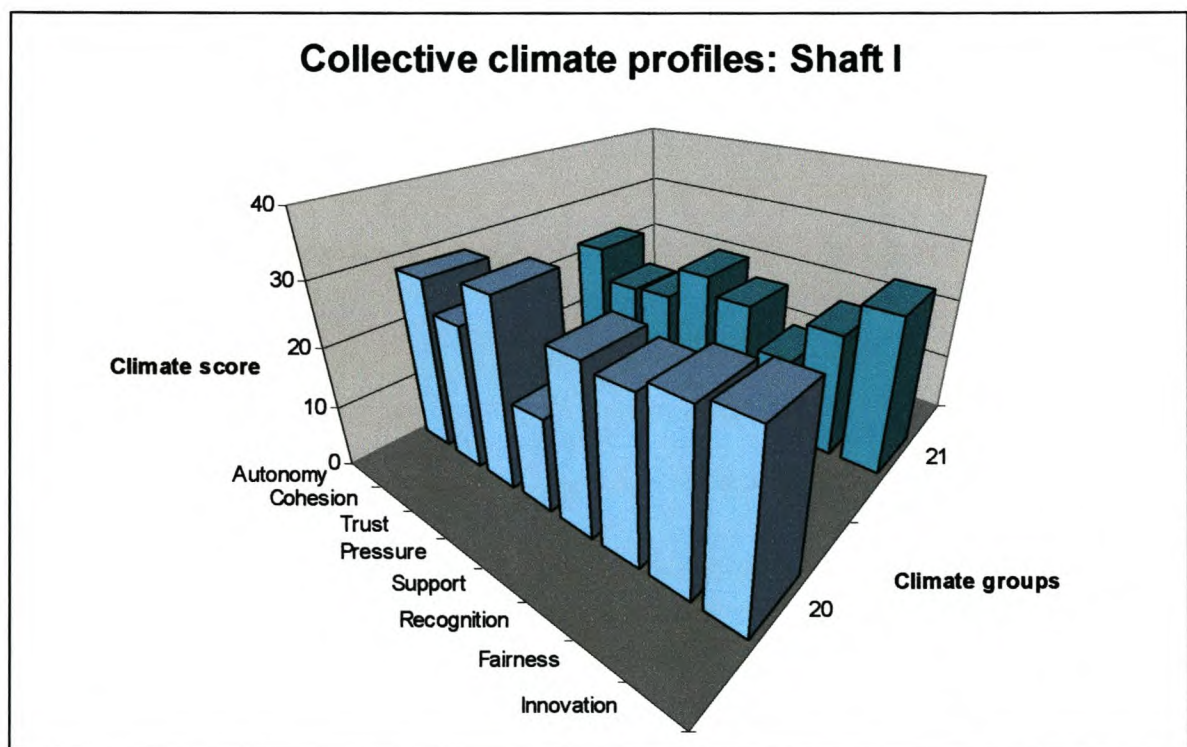

**Figure 5.9 Collective climate profiles Shaft I**

Table 5.17:                    Shaft J

Dimensions	Climate 23 (n = 6)		Climate 24 (n = 3)		Climate 33 (n = 7)	
	$\bar{X}$	S	$\bar{X}$	S	$\bar{X}$	S
Autonomy	20.33	5.57	14.33	4.93	32.00	2.00
Cohesion	13.47	2.00	13.06	6.25	28.57	3.22
Trust	27.50	4.93	10.00	6.24	27.71	8.38
Pressure	17.33	6.41	18.33	9.45	17.86	6.23
Support	22.67	5.43	8.67	5.51	30.29	5.65
Recognition	18.83	3.31	9.33	1.53	28.86	2.04
Fairness	22.00	4.60	9.00	3.61	33.00	1.63
Innovation	26.17	3.66	11.33	9.29	31.57	3.95
ACS	27.50	1.87	19.33	9.81	36.14	7.03
CCS	26.33	6.92	20.00	7.55	31.71	12.57
NCS	20.50	4.72	13.67	3.06	27.00	9.87
Intent to Stay	12.67	1.75	9.00	4.36	17.14	3.53
$\bar{X}$ (Climate)	21.04		11.76		28.73	
S (Climate)	4.60		3.33		4.76	

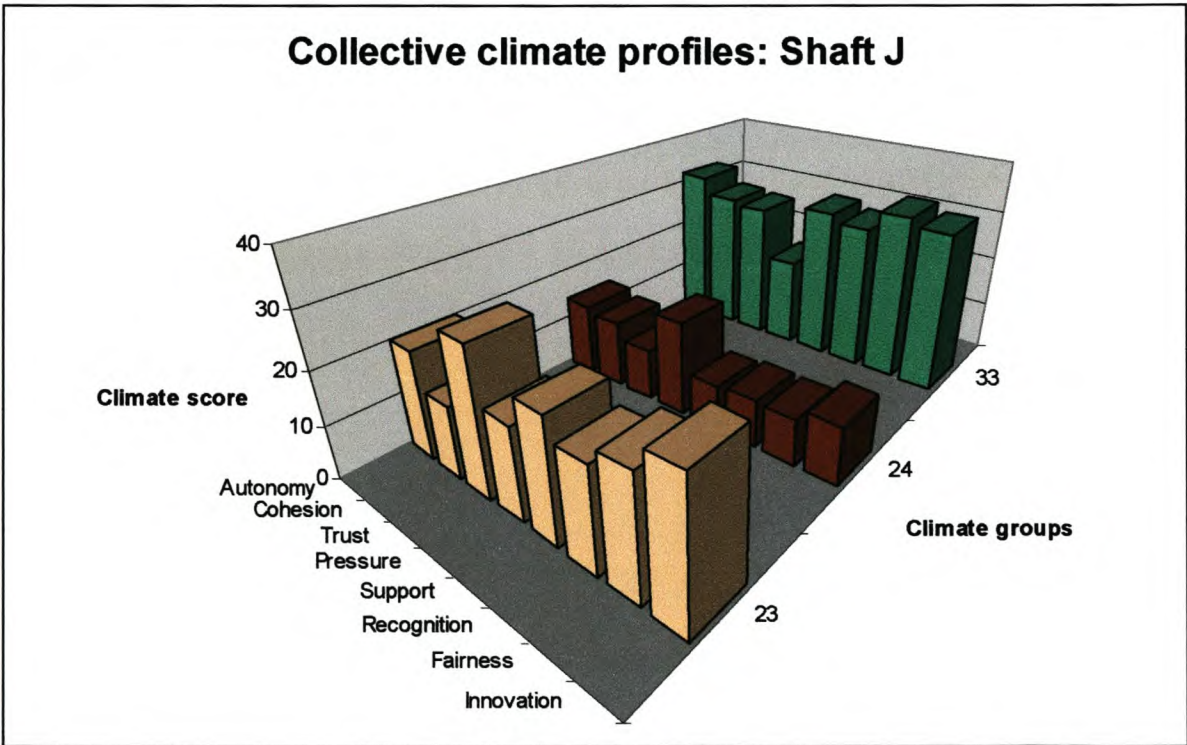


Figure 5.10    Collective climate profiles Shaft J



Table 5.18: Shaft K

Dimensions	Climate 25 (n = 11)		Climate 26 (n = 3)	
	$\bar{X}$	S	$\bar{X}$	S
Autonomy	29.17	4.76	25.00	7.21
Cohesion	26.60	3.70	26.11	5.91
Trust	30.42	5.40	21.67	4.73
Pressure	22.58	7.30	23.00	10.58
Support	31.00	4.73	20.33	4.51
Recognition	28.92	3.85	15.00	8.00
Fairness	29.00	6.38	25.67	5.77
Innovation	28.25	8.04	27.00	6.93
ACS	39.58	6.04	33.67	10.97
CCS	34.00	8.46	31.33	16.80
NCS	23.25	7.02	23.67	7.02
Intent to Stay	16.67	2.67	13.00	6.56
$\bar{X}$ (Climate)	28.24		22.97	
S (Climate)	2.65		3.96	

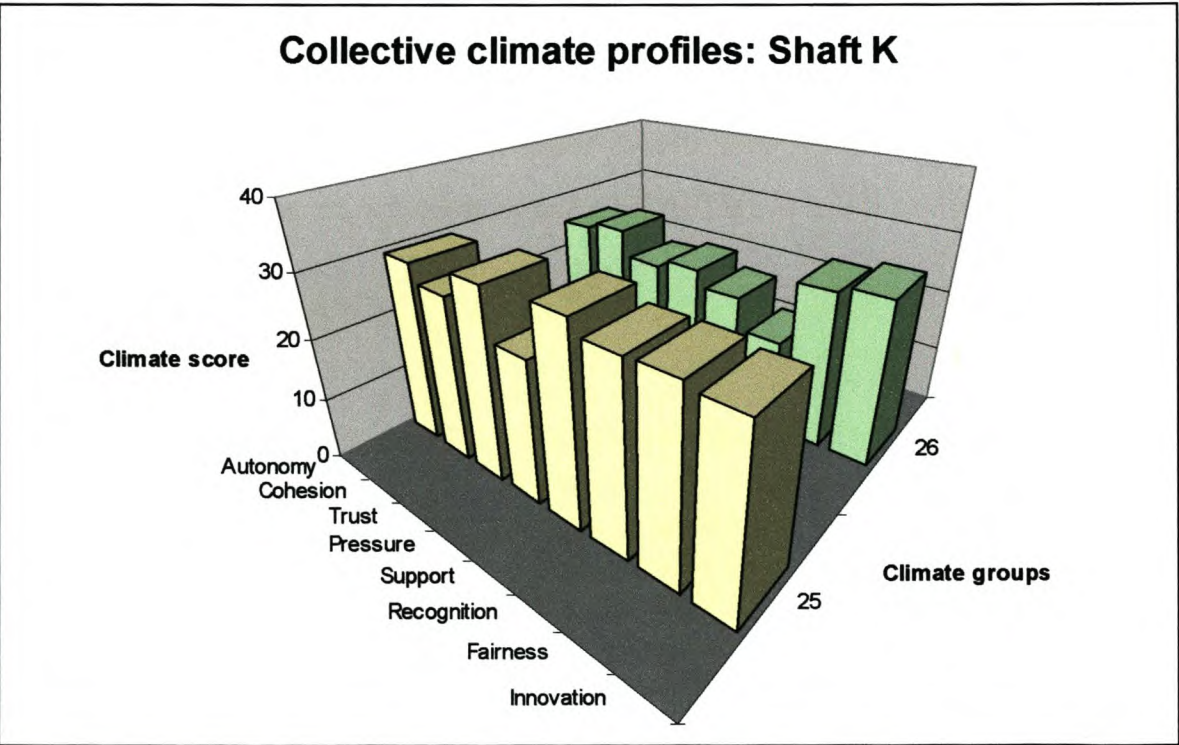
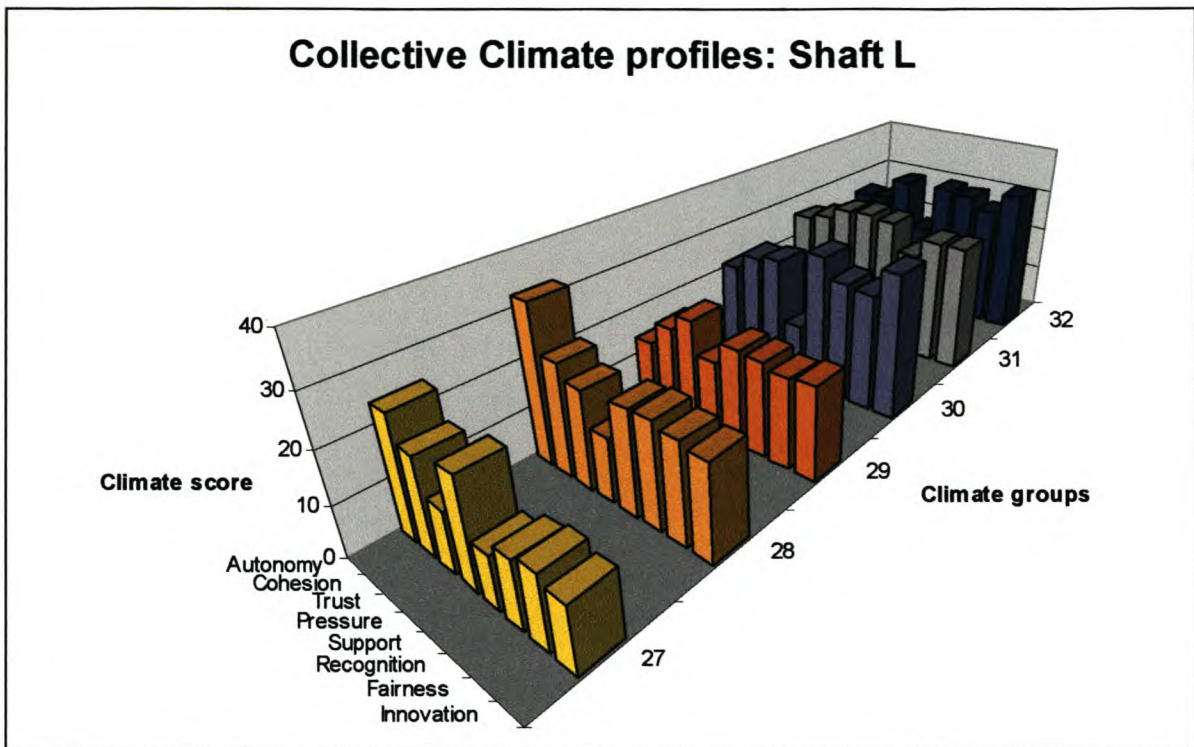


Figure 5.11 Collective climate profiles Shaft K

**Table 5.19: Shaft L**

Dimensions	Climate 27 (n = 16)		Climate 28 (n = 4)		Climate 29 (n = 10)		Climate 30 (n = 8)		Climate 31 (n = 6)		Climate 32 (n = 12)	
	$\bar{X}$	S	$\bar{X}$	S	$\bar{X}$	S	$\bar{X}$	S	$\bar{X}$	S	$\bar{X}$	S
<b>Autonomy</b>	24.19	7.56	32.50	2.89	14.10	3.38	21.63	6.02	26.00	8.10	25.08	5.30
<b>Cohesion</b>	19.06	5.22	22.92	6.96	18.92	4.89	25.21	4.22	27.36	3.31	25.35	5.29
<b>Trust</b>	12.06	4.57	20.00	6.06	22.50	4.93	26.13	3.72	29.83	2.93	30.33	4.40
<b>Pressure</b>	21.44	5.10	13.25	1.26	15.70	3.53	12.63	1.85	30.33	2.42	19.33	4.50
<b>Support</b>	10.50	4.29	21.00	2.58	20.20	4.13	29.88	2.90	29.50	2.88	30.67	4.72
<b>Recognition</b>	13.00	4.24	21.50	2.65	20.00	4.59	25.63	1.69	23.33	3.88	29.92	3.23
<b>Fairness</b>	14.25	5.13	20.25	1.50	18.80	6.41	24.88	3.23	27.50	3.89	27.33	5.37
<b>Innovation</b>	12.69	5.40	19.25	3.50	19.30	4.08	30.88	2.59	27.50	2.35	32.25	2.90
<b>ACS</b>	25.10	6.23	31.00	7.39	26.90	7.22	28.25	1.98	37.67	3.67	39.75	8.65
<b>CCS</b>	25.00	10.88	30.25	5.85	26.60	4.27	34.00	8.91	31.67	9.09	22.92	7.94
<b>NCS</b>	17.63	7.37	21.75	8.34	20.10	7.02	26.13	3.40	19.83	8.26	21.75	8.09
<b>Intent to Stay</b>	12.44	3.35	14.00	3.27	12.60	2.84	11.75	0.71	15.50	3.89	15.42	3.32
$\bar{X}$ (Climate)	15.90		21.33		18.69		24.61		27.67		27.53	
S (Climate)	5.00		5.34		2.64		5.65		2.29		4.20	





**Figure 5.12: Collective climate profiles Shaft L**

Incidentally a fairly equal number of climate groups (9%) scored lowest in Support. Eighteen (55%) of the climate groups scored lowest in Pressure, while seven (20%) scored lowest in Recognition.

#### 5.4.2 ORGANISATIONAL COMMITMENT

Because of the unequal number of items representing each organisational commitment dimension, comparisons across dimension scores were not possible. Scores on Affective Commitment ranged from 19.33 for Climate 24 (Shaft J) to 41.38 for Climate 6 (Shaft B). Calculative Commitment scores ranged from 18.67 for Climate 14 (Shaft F) to 38.17 for Climate 3 (Shaft A). Normative Commitment scores ranged from 13.67 for Climate 24 (Shaft J) to 29.33 for Climate 3 (Shaft A).

Although the Organisational Climate Questionnaire is not a standardised measuring instrument, collective climate scores were graded as follows for purposes of interpretation:

- Unacceptable:  $\bar{X} < 21$
- Acceptable:  $21 > \bar{X} < 28$
- Satisfactory:  $28 > \bar{X}$

The above cut-off points were chosen arbitrarily.

#### **5.4.3 INTENT TO STAY**

Scores on the measure for intent to stay ranged from 9 for Climate 24 (Shaft J) to 18 for Climate 3 (Shaft A). The average score on this measure was 13.80.

### **5.5. HIERARCHICAL CLUSTERING RESULTS**

The first null hypothesis proposed that no significant differences between mean climate scores would be found per organizational unit. Collective climates were identified using analytical methods that clustered individuals on the basis of profile similarity in terms of the eight climate dimensions. Clustering was performed within departments as these were considered as the most meaningful formal organizational units. For this purpose the Statistica capital data analysis software system was used (StatSoft, Inc., 2001). The tree-structures of the clusters for each of the respective departments / shafts have been attached in Addendum B.

Hierarchical techniques begin clustering at the individual level and successively allocate individuals into groups until a final group is resolved. The decision at what point to terminate clustering, or which levels in the hierarchy best represent the organisation's climates, is subjective and depends upon the researcher. In the present study, clusters were considered meaningful at an index level of 25. This was taken as the cut-off point for allocating individuals to the various climates.

After having allocated individuals to climates, non-optimum clusters are usually generated as a result of allocation decisions made early in the clustering process. According to Joyce et al. (1982) non-hierarchical clustering methods should then be used to refine these initial climates to obtain a better solution. Due to the non-availability of non-hierarchical clustering software, this was not possible. As a consequence, non-optimum clusters, i.e. clusters with less than 3 cases, were ignored.

The results of the hierarchical clustering analysis have been summarized in Table 5.20. These climates were identified on the basis of consensus of individuals' perceptions or psychological climates. An average number of two climates per department/shaft were indicated.



Following this step, the next logical step was to determine whether these collective climates are significantly different from one another to merit further description and analysis (Tustin, 1993). Multivariate and univariate analyses of variance were therefore employed to determine if significant differences existed between the climate group profiles. These results are shown in Table 5.21. Blanks indicate that the contribution to explained variance in organisational climate due to climate membership was insignificant. Only one climate group was identified in Shaft C. As a consequence this department was not included in the analysis.

**Table 5.20     Distribution of collective climate groups**

<b>Shaft / Department</b>	<b>n</b>	<b>Number of climate groups</b>
<b>Shaft A</b>	33	4
<b>Shaft B</b>	27	3
<b>Shaft C</b>	5	1
<b>Shaft D</b>	14	2
<b>Shaft E</b>	12	3
<b>Shaft F</b>	12	2
<b>Shaft G</b>	14	2
<b>Shaft H</b>	18	3
<b>Shaft I</b>	11	2
<b>Shaft J</b>	16	3
<b>ShaftK</b>	15	2
<b>Shaft L</b>	57	6

The F-ratios obtained indicate that meaningful differences across the collective climates in respect of their dimensions exist. The majority of dimensions were found to have highly significant effects due to climate membership (clusters). No significant differences, however, could be demonstrated between climate groups within three of the twelve shafts (Shafts J, I and K). Further description and analysis of these collective climates were nevertheless considered as meaningful.

**Table 5.21**    **Manovas and Anovas of climate groups per department / shaft**

	Shaft A		Shaft B		Shaft D		Shaft E		Shaft F	
	F	P	F	P	F	P	F	P	F	P
Multivariate	$df = 24,64.4$		$df = 13,34$		$df = 8,5$		$df = 16,4$		$df = 8,3$	
	9.48	.001	7.53	.001	36.21	.001	13.19	.01	10.35	.05
Univariate	$df = 3,29$		$df = 2,24$		$df = 1,12$		$df = 2,9$		$df = 1,10$	
Autonomy	1.54	-	4.00	.05	0.68	-	16.19	.001	3.47	-
Cohesion	7.70	.001	8.10	.01	7.68	.05	2.08	-	0.17	-
Trust	35.48	.001	34.84	.001	11.90	.01	15.97	.001	2.50	-
Pressure	3.36	.05	2.55	-	1.31	-	0.74	-	2.66	-
Support	24.36	.001	65.34	.001	31.71	.001	34.93	.001	15.30	.01
Recognition	23.66	.001	17.79	.001	10.45	.01	18.37	.001	61.18	.001
Fairness	35.62	.001	41.75	.001	4.25	-	21.04	.001	34.96	.001
Innovation	28.73	.001	44.73	.001	17.23	.001	59.42	.001	13.27	.01

	Shaft G		Shaft H		Shaft I		Shaft J		Shaft K		Shaft L	
	F	P	F	P	F	P	F	P	F	P	F	P
Multivariate	$df = 8,5$		$df = 16,16$		$df = 8,2$		$df = 16,12$		$df = 8,6$		$df = 40,190.2$	
	3.31	.010	8.71	.001	3.60	-	12.49	.001	2.45	.15	9.56	.001
Univariate	$df = 1,12$		$df = 2,15$		$df = 1,9$		$df = 2,13$		$df = 1,13$		$df = 5,50$	
Autonomy	5.26	.05	5.49	.05	1.46	-	23.02	.001	1.53	-	6.91	.001
Cohesion	7.46	.05	1.79	-	3.96	-	37.07	.001	0.03	-	4.90	.001
Trust	47.99	.001	40.69	.001	15.63	.01	7.92	.01	6.53	.05	29.49	.001
Pressure	3.11	-	3.69	.05	13.89	.01	0.02	-	0.01	-	18.31	.001
Support	25.86	.001	53.19	.001	2.95	-	16.05	.001	12.38	.01	48.91	.001
Recognition	1.31	-	41.51	.001	29.11	.001	66.70	.001	20.77	.001	31.60	.001
Fairness	9.04	.01	24.57	.001	22.25	.001	55.50	.001	0.67	-	13.20	.001
Innovation	13.31	.01	24.47	.001	0.68	-	16.81	.001	0.06	-	44.69	.001



## **5.6. THE RELATIONSHIP BETWEEN COLLECTIVE CLIMATE AND ORGANISATIONAL COMMITMENT**

Canonical and multiple regression analyses were employed in order to test the relations between the dependent and independent variables. Canonical correlation analysis was performed between the organisational climate dimensions and the organisational commitment dimensions by means of the CANCELL procedure of the SAS program (SAS Institute, Inc., 1988). The results of the canonical correlation analysis are summarized in Tables 5.22 and 5.23. In total, three canonical roots were produced; of which only one was significantly different from zero ( $F = 8.06$ ,  $p < 0.001$ ). The correlations associated with these were 0.69; 0.28 and 0.16 respectively. The second canonical variate pair was significant at the 5% confidence level, but was not interpreted. Both the structure and standardized canonical coefficients associated with the significant pair of canonical variates are shown. The standardized coefficients are the weights used in the computation of the commitment and antecedent canonical variates, whereas the structure coefficients are the correlations of these linear combinations with each variable (Allen et al., 1990a; Berenson, Levine & Goldstein, 1983). The structure coefficients were used for the purpose of interpretation. Interpretation was based on variables correlating 0.30 or greater with the canonical variate. From the results it is clear that shared variance between organisational climate and organisational commitment totalled 48%. The first pair of canonical variates explained 89% of the variance.

## **5.7. THE RELATIONSHIP BETWEEN COLLECTIVE CLIMATE AND INTENT TO STAY**

Multiple regression analysis was performed to test the relationship between collective climate and intention to stay. A set of dummy variables, coded to represent membership in the respective collective climate groups, were entered as independent variables, while intent to stay was treated as the dependent variable. For this purpose the REG procedure of the SAS program (SAS Institute, Inc., 1988) was utilised. The results have been reported in Table 5.24.

The multiple correlation coefficient ( $R$ ) indicates the magnitude of the relations between these variables. It represents the highest possible correlation between a least-squares linear composite of the independent variables (in this case the collective climate dimensions) and the observed dependent variable (intention to stay). The coefficient of determination ( $R^2$ ) is an estimate of the proportion of the variance of the dependent variable accounted for by the independent variables (Kerlinger, 1986).

**Table 5.22 Canonical correlations between collective climate and organisational commitment**

	Canonical Correlation	Adjusted Canonical Correlation	Approximate Standard Error	Squared Canonical Correlation
<b>1</b>	.69	.68	.03	.48
<b>2</b>	.28	.23	.06	.07
<b>3</b>	.16	.10	.06	.02

**Table 5.23 Canonical variates of collective climate and organisational commitment**

Statistic	Value	F Value	Num DF	Den DF	Pr > F	
Wilks' Lambda	0.47	8.06	24	644.47	< .0001	
Pillai's Trace	0.58	6.76	24	672	< .0001	
Hotelling-Lawley Trace	1.04	9.53	24	473.85	< .0001	
Roy's Greatest Root	0.93	25.90	8	224	< .0001	
Canonical variates						
	Standard	Structure	Standard	Structure	Standard	Structure
	coefficients	coefficients	coefficients	coefficients	coefficients	coefficients
Climate variables						
Autonomy	.11	.53	.31	.23	.17	.22
Cohesion	.42	.82	-.11	-.00	.51	.25
Trust	.03	.74	-.56	.00	.53	-.09
Pressure	.26	.47	-.66	-.55	-.22	-.14
Support	.23	.83	.40	.17	-1.97	-.39
Recognition	.11	.73	-.62	-.05	.80	.08
Fairness	.06	.77	-.06	.10	-.20	-.15
Innovation	.18	.77	1.07	.45	.51	.01
Commitment variables						
Affective	.95	1.00	-.52	-.09	-.36	-.03
Continuance	.02	.46	-.09	.24	1.18	.87
Normative	.09	.50	1.13	.87	-.37	.06



**Table 5.24** Standard multiple regression of collective climate dimensions on Intention to Stay

Variable	N	1	2	3	4	5	6	7	8	B	$\beta$ (Beta)	Unique $sr^2$
1.Autonomy	244									.02	.04	.00
2.Cohesion	244	.43***								.16***	.27	.04
3.Trust	242	.28***	.45***							.05	.13	.01
4.Pressure	242	.14**	.23***	.09						.05	.10	.01
5.Support	240	.32***	.50***	.71***	.14**					.03	.06	.00
6.Recognition	240	.28***	.41***	.51***	.17***	.76***				.02	.04	.00
7.Fairness	240	.33***	.44***	.62***	.22***	.74***	.65***			-.02	-.03	.00
8.Innovation	240	.29***	.41***	.51***	.17***	.75***	.68***	.68***		.03	.06	.00
Intercept = 7.26												
$\bar{X}$		25.41	22.70	24.90	19.08	23.93	21.21	23.26	24.32			
S		6.45	6.24	9.27	6.71	8.30	7.15	8.25	7.78			
											Adjusted $R^2 = .29$	
												$R = .64$

\*\*\* P<.01  
\*\* P<.05

The findings indicate that 40% of the variance in intention to quit was accounted for by collective climate ( $F = 3.43$ ,  $p < 0.001$ ). Only one collective climate dimension, that is Cohesion, significantly contributed to the regression ( $sr^2 = 0.04$ ,  $p < 0.001$ ). It would appear that Cohesion exerts a positive influence on Intention to Stay ( $\beta = 0.27$ ,  $p < 0.001$ ).

## 5.8. THE RELATIONSHIP BETWEEN ORGANISATIONAL COMMITMENT AND INTENT TO STAY

Table 5.26 summarises the results with respect to standard multiple regression of the three organisational commitment dimensions on intent to stay. The multiple correlation coefficient was found to be significantly different from zero  $\{F(3,236) = 95.78$ ;  $p < 0.001\}$  and all of the organisational commitment dimensions significantly contributed to the regression. Together they explained 55% of the variance in intention to stay. The unique contribution of the three organisational commitment dimensions to  $R^2$  totalled 0.50. Affective commitment ( $\beta = 0.51$ ,  $p < 0.001$ ), calculative commitment ( $\beta = 0.14$ ,  $p < 0.01$ ) and normative commitment ( $\beta = 0.25$ ,  $p < 0.001$ ) exerted positive influences on intent to stay.

**Table 5.25** Standard multiple regression of organisational commitment dimensions on Intent to Stay

Variable	N	1	2	3	B	$\beta$ (Beta)	Unique $sr^2$
1.ACS	240				.20***	0.51	.04
2.CCS	240	.41***			.05***	0.14	.003
3.NCS	240	.41***	.49***		.13***	0.25	.01
Intercept = 3.23							
$\bar{X}$		32.02	28.57	22.45			
S		9.30	9.62	7.07			
Adjusted						$R^2 = .55***$	
						$R^2 = .54$	
						$R = .73$	

\*\*\* $p < .01$



## **5.9. CONCLUSION**

The results pertaining to hierarchical clustering, canonical correlational analysis and standard, multiple regression analysis have been reported in this chapter. Multiple climates were indicated in most of the departments / shafts. All measures were subjected to item analysis and confirmatory factor analysis.

## **CHAPTER SIX**

### **DISCUSSION OF RESULTS, CONCLUSIONS AND RECOMMENDATIONS**

#### **6.1. INTRODUCTION**

The results of the various statistical procedures with reference to the research objectives were presented in Chapter Five. The aim of the present chapter is to interpret the findings in terms of the hypotheses formulated, and also to integrate these findings with existing literature.

In the present chapter inferences will thus be made about the reliability of the various measures used, the homogeneity of climate perceptions within the organisation, as well as the respective relationships between organisational climate, organisational commitment and intention to stay.

#### **6.2. RELIABILITY OF SCALES**

Based on the results reported, the following conclusions were made with respect to the reliability of the measures:

- The Koys and DeCottis Organisational Climate Questionnaire and the Shore and Martin Measure of Intent to Stay demonstrated satisfactory psychometric properties. The only dimension that failed to meet the level recommended by Nunnally (1978) was the Trust dimension of the Organisational Climate Questionnaire ( $\alpha = 0.47$ ). Further investigation of the correlation matrix showed that rewording or even deletion of item 11 (Manager keeps things private) may drastically improve the reliability of the scale.
- Reliabilities for all scales of the Organisational Commitment Scale of Allen et al. (1990) exceeded the level recommended by Nunnally (1978) and were consistent with coefficients reported in previous research (Allen et al., 1990; Bartlett, 1999; Meyer et al., 1989). Some items, however, caused some concern as they demonstrated negative coefficients. Two possible explanations may be offered. Firstly, it is possible that the items in question are not correlated with any of the other



items on test. In this case the items should be either substantially rewritten or discarded altogether. Secondly, it is likely that these items show positive correlations with some items, and zero or negative correlations with other items on the test. This would indicate that the test measured two distinct attributes (Smit, 1991).

It was apparent that items 8 and 20 of the OCS performed better in the study of Bartlett (1999), but nevertheless displayed low item-total correlations. These items therefore may need to be rewritten.

- The findings of the confirmatory factor analysis confirmed the idea of organisational commitment and organisational climate as multidimensional constructs. In this regard the results are in line with previous research (Kamfer et al., 1993). With the exception of the Pressure dimension, the factor analytical structure of the Organisational Climate Questionnaire as proposed by Koys et al. (1991) was largely confirmed. The Pressure dimension, explaining 46% of the variance, yielded two sub-dimensions. Incidentally, this dimension was one of the dimensions identified by Koys et al. (1991) that required some improvement. It was clear from the correlational matrix that only item 17 loaded on the second factor. On closer inspection it became apparent that this item demonstrated a particularly small loading which accounted for the two sub-dimensions identified.

The following items were identified as needing improvement:

Cohesion:	Item 5 ( $r = 0.30$ )
Trust:	Item 11 ( $r = 0.41$ )
Pressure:	Item 17 ( $r = 0.16$ )
Recognition:	Item 27 ( $r = 0.43$ )
Fairness:	Item 33 ( $r = 0.55$ )

- The results of the factor analysis of the Organisational Commitment Scale contradicted previous research findings. In contrast with previous findings (Meyer et al., 1990) both the ACS and the CCS were found to consist of two sub-dimensions. A review of the correlational matrices indicated that two meaningful factors of the ACS could be interpreted. The general theme underlying the first factor was interpreted as indicative of the degree to which an individual identified with an organisation. A strong underlying theme of belongingness was identified with respect to the second



factor. The factor structure of the ACS was therefore interpreted as meaningful and the two sub-dimensions were labelled *identification* and *belongingness*. These findings seem to be in line with early conceptualisations of organizational commitment as consisting of several aspects, namely (a) identification with the organization, (b) involvement in the organizational work role and (c) warm, affective regard for, or loyalty to, the organization (Ferris et al., 1983).

- The dual factor structure of the CCS was interpreted as an indication that certain items needed improvement. This was confirmed by the negative item-total correlation demonstrated during item analysis. It may thus be assumed that rewording of the item would result in a single factor structure of the dimension.
- Fairly high inter-dimensional correlations were reported for the Organisational Climate Questionnaire and the Organisational Commitment Scale (see Tables 5.25 and 5.26). Although Allen et al. (1990) reported a link between affective and normative commitment, the high intercorrelations with calculative commitment were unexpected. Intercorrelations reported between subscales of the Organisational Commitment Scale are much higher than in other studies. This was interpreted as an indication that these dimensions are not entirely independent.

### 6.3 THE EXISTENCE OF MULTIPLE CLIMATES

The findings obtained with respect to multiple climates were supportive of those reported by Jackofsky et al. (1988), Joyce et al. (1982) and Tustin (1993). The number of climates groups that were identified appeared to be a function of the sample size in each department / shaft. After having considered the sample sizes reported in previous studies, the number of climate groups per department seemed consistent with that of Joyce et al. (1982) and Tustin (1993).

Overall, the differences in mean collective climate scores were climate specific and not due to differences in department. Shafts A, B and J, for instance, were both characterised by collective climates with very high and very low mean collective climate scores. This finding contradicts that of Drexler (1977) who found definite departmental effects on organisational climate. It is suggested that



this inconsistency might have resulted from Drexler's (1977) failure to first establish perceptual agreement.

The most prominent perceptual differences were found with respect to the Trust, Recognition, Fairness, and Innovation dimensions. Various factors may be held accountable for these differences. Glick (1985), for example, pointed out that low perceptual agreement on some dimensions (e.g. Pressure) may be attributed to random error and substantive reasons. Differences in perceptions may result from employees drawing comparisons with different reference points, for example their spouses' work experiences. This is consistent with Field et al.'s revised model of organisational climate. Glick (1985) further maintained that other interpretations are possible for dimensions such as trust and supportiveness. However, the nature of the dimensions implied that perceived differences could most likely be accounted for by differences in leadership functions. This conjecture is supported by most theories on organisational climate (Coetsee, 2002; Field et al., 1982; Smuts, 1996; Van der Walt, 1997).

Notably, certain climate dimensions have failed to distinguish between the various collective climate groups. This was partly attributed to slightly deficient construct validity and internal consistency (e.g. the Pressure dimension) and partly to the existence of general agreement with respect to certain dimensions, such as Autonomy and Cohesion. Assuming that the latter is true, then it may be concluded that the collective climates within Shafts A, D, F, G, I and K are characterised by similar perceptions pertaining levels of autonomy and are therefore homogenous in terms of organisational climate. Similarly, collective climates in Shafts E, F, H and K are possibly characterised by similar perceptions with respect to the "team spirit" or willingness of members to provide help. This finding was not surprising considering the specific company's ongoing and eminent emphasis on the value of team work (One Team One Vision). Also, considering that most respondents are on the same job level and relatively senior levels at that, similar perceptions of Autonomy levels were to be expected.

In view of the above, it is evident that collective climates can be identified quite successfully on the basis of perceptual agreement. Despite the fact that three of the departments / shafts had homogenous climates, the first null hypothesis was rejected. Conceivably, some departments or formal work groups



may be more homogeneous in terms of climate perceptions than others. The effects of homogeneity on work outcomes remain to be tested.

#### **6.4. COMPARISON OF VARIOUS COLLECTIVE CLIMATES**

Measured against the standards described in Chapter Five, a nearly equal number of collective climate groups could be respectively described as “unacceptable” (36%) or “acceptable” (39%), with a slightly smaller percentage (24%) labelled as “satisfactory”. In total, 64% of the collective climate groups reported favourable climate perceptions.

Analysis of the dimension scores revealed that Pressure and Recognition were possible problem areas. A low score in the Pressure dimension reflects a general perception that time demands with respect to task completion and performance standards are unreasonable. This would typically be the case where an employee feels overwhelmed by his/her work load or incapable of performing the tasks at hand. Recognition refers to the perception that contributions towards organisational goals are acknowledged and rewarded. Both have been shown to have considerable impact on behavioural outcomes (Hemingway et al., 1999).

Dimensions of Innovation, Support and Trust were most often rated favourably. Findings with respect to the former dimension could well be attributed to a well established incentive scheme, based on innovative suggestions, that was implemented a few years ago within the relevant organisation. This scheme was intended as a cost-saving and continuous improvement initiative, and basically encourages employees to come forward with suggestions regarding more efficient work procedures. Suggestions are evaluated against predetermined criteria and usually result in financial gains for the employee and the company.

Ratings on the dimensions of Support and Trust mostly relate to employees’ perceptions of management, and in this respect portray a favourable image in most cases. At the same time, however, many climate groups were characterised by unfavourable perceptions of Support.



In conclusion, it can be safely inferred that the majority of the respondents viewed their respective departments favourably<sup>1</sup>. Most aspects of the work environment have been perceived differently by the various climate groups. The only aspect that most respondents seem to agree upon pertains to high perceived pressure levels.

## **6.5. THE RELATIONSHIP BETWEEN COLLECTIVE CLIMATE AND ORGANISATIONAL COMMITMENT**

Overall, the results presented in Chapter 5 support the second alternative hypothesis. In other words, the second null hypothesis was rejected and a definite link between collective climate and organisational commitment was established. More specifically, it would appear that a collective climate that is characterised by perceptions of high cohesion, support, fairness, innovation and trust, moderate autonomy and low pressure, is more likely to correspond with high levels of affective commitment, and moderate levels of calculative and normative commitment.

The results reported are consistent with findings by DeCottiis et al. (1987) and Roodt (1992). In terms of cohesion and management receptiveness in terms of innovation, the results supported those of Meyer et al. (1990). More specifically, the findings pertaining to the recommended level of autonomy seem to confirm those of Luthans et al. (1987) in that high initiating structure behaviour by leaders is believed to be positively related to organisational commitment. It was argued that such behaviours reduce role ambiguity, which in turn positively impacts organisational commitment levels. Luthans et al.'s (1987) posit contradicts traditional perspectives who mainly advocated the benefits of autonomy. Excessive levels of autonomy, however, may increase levels of responsibility (Hrebiniak, 1974) or occupational stress levels (Hemingway et al., 1999). This may in the long run have a negative impact on organisational commitment levels.

---

<sup>1</sup> The use of the term "favourable" in this context is not meant to denote an affective response, but rather gives an indication of degree to which a positive or healthy collective climate may be assumed.



## **6.6. THE RELATIONSHIP BETWEEN COLLECTIVE CLIMATE AND INTENT TO STAY**

The results reported in the present study are supportive of findings by Bishop et al., (2002), Jackofsky et al. (1988), and Schwepker (2001). Collective climate is thus believed to be positively related to intent to stay. A possible explanation for the link was offered by Jackofsky et al. (1988), who argued that when perceptual agreement exists, this agreement is powerful enough not to be affected by external influences, such as newcomers or changes in leadership. Moreover, low perceptual agreement with significant others (i.e. climate discrepancy) may result in tension that the individual will strive to reduce. In a worst case scenario, an employee may even resign in order to remove him- / herself from such a situation. The main consequences of this process are that (a) perceptual agreement among members will be achieved over time, and (b) once achieved there will be little motivation for employees to change their cognitions about events in the work environment.

Similarly, the phenomenon of perceptual agreement could possibly explain the regression of intent to stay on Cohesion, otherwise known as *esprit de corps*.

Furthermore, it is likely that the reported perceptions of Autonomy and Pressure may have contributed to high stress levels and thus increased the likelihood of decreased job satisfaction and turnover intentions. This has previously been suggested by findings of Hemingway et al. (1999) in which a link was established between some climate dimensions, such as Work pressure, Support and Autonomy, and certain occupational stressors among nurses, which in turn impacted on their turnover intentions and short-term absences (Hemingway et al., 1999).

Based on the findings the third null hypothesis was rejected.

## **6.7. THE RELATIONSHIP BETWEEN ORGANISATIONAL COMMITMENT AND INTENT TO STAY**

The results of the present study are consistent with the general body of literature on organisational commitment with respect to turnover intentions (Angle et al., 1981; Bishop et al., 2002; Shore et al., 1989; Werbel et al., 1984; Wiener, 1982). What this implies is that low levels of organisational



commitment will increase the likelihood of unwanted turnover. Of the three organisational commitment dimensions, affective commitment seemed to be the strongest predictor of intention to stay. This confirms the superiority of affective commitment as a predictor of behavioural outcomes (Randall et al., 1990; Randal, 1990) and suggests that interventions aimed at fostering affective commitment might be more effective in reducing turnover intentions. However, it should be emphasised that a strong desire to remain a member of one's organisation does not necessarily guarantee high levels of productivity.

It is quite obvious that organisational commitment explained more variance of intention to stay than did collective climate. Organisational commitment, according to DeCotiis et al. (1987), serves as a stabilising force that continues to direct behaviour even when expectancy conditions are not met and do not function. In this sense, commitment serves to minimise damaging effects of temporary, idiosyncratic behaviour of the organisation toward an individual employee.

## **6.8. SUMMARY**

The aim of the present chapter was to interpret the findings as presented in Chapter Five. Based on the findings the researcher was able to reject all of the null hypotheses. Definite links between the hypothesised constructs were therefore established subsequent to the identification of multiple collective climates. Overall, the results were consistent with earlier research findings.

## **CHAPTER SEVEN**

### **IMPLICATIONS, LIMITATIONS AND RECOMMENDATIONS**

#### **7.1. INTRODUCTION**

The present chapter represents the culmination of the entire research effort. The results and conclusions drawn from them are of no use unless the implications for management are made explicit. The aim of the chapter is therefore threefold: (a) to give an outline of the practical and theoretical implications of the results; (b) to point out limitations of the study, and (c) to make recommendations for further research.

#### **7.2. IMPLICATIONS OF THE STUDY RESULTS**

In general, the most important implication of the findings reported is that management can no longer afford to ignore employees' perceptions with respect to their work environment. Within the parameters of the present study it was clearly shown that employees' collective climate perceptions influence their commitment to the organisation, which in turn impacts their turnover intentions. Given the growing emphasis on retention of skills, intervention strategies should thus be aimed at improving communication processes in order that employee perceptions may be managed successfully.

More importantly, the management of healthy and positive organisational climates are becoming increasingly important as western economies are changing to knowledge economies and traditional retention strategies become redundant (May, Korczynski & Frenkel, 2002). The modern labour force is characterised by a new type of employee that has dramatically different characteristics and needs from the traditional employee. One consequence of this phenomenon is the fact that organisations not only compete among one another, but now also compete with occupational groups for commitment.

“Unlike traditional professionals, knowledge workers do not [merely] rely on conventional occupational or organisational credential systems to establish and gain economic and political advantages for their expertise. In stead, they make use of the esoteric and intangible nature of their knowledge to create market niches for themselves. In terms of their labour market positions, these workers are located in



external rather than internal labour markets. This pushes knowledge workers towards an organic or network organisational form which is characterised by decentralised flexibility and autonomy” (May, 2002, p.777).

The most important implication appears to be that all organisations need to revise their practices and procedures in order to ensure favourable perceptions and high levels of organisational commitment.

Perceptions of management’s trustworthiness and support, for instance, directly contribute to employees’ organisational commitment levels (Whitener, 2001). Shadur et al. (1999) further argued that perceptions of organisational support may even facilitate a “metaphorical credit account upon which the organisation can draw in times of need, allowing flexibility when faced with demanding conditions”. These credits may potentially reduce the impact of unfavourable working conditions on employees’ turnover intentions. In addition Eisenberger, Huntington, Hutchison and Sowa (1986) suggested that employees form general perceptions of the extent to which the organisation values their contributions and cares about their well-being. These perceptions enable them to meet needs for approval, affiliation, and esteem and to determine the organisation’s readiness to compensate increased effort with greater rewards. The perception of being valued and cared about by the organisation has been labelled *perceived organisational support* (POS) (Eisenberger et al., 1990) and is instrumental to the maintenance of healthy psychological contracts. It supposedly promotes the incorporation of organisational membership and role status in the employee’s self-identity, thereby increasing prosocial acts carried out on behalf of the organisation (Eisenberger et al., 1990). The underlying implication to this approach is that organisational commitment can no longer be viewed as an unidirectional phenomenon (Bishop et al., 2002). Rather, expressions of commitment to the employee (and his / her wellbeing) should be seen as equally important.

At the same time employees are more likely to reach high levels of organisational commitment if their job promotes the attainment of valued goals. Maier and Brunstein (2001) for example, observed increases in organisational commitment among new employees who were committed to their personal work goals and perceived their organisational environment to be favourable for the attainment of these goals. In contrast, new employees who were strongly committed to self-determined work goals but were exposed to poor conditions for accomplishing these goals, experienced a decline in organisational commitment. It is important that management provides the most appropriate environment and means required in order to achieve these goals.



It stands to reason that management's conduct greatly determines employees' perceptions with respect to trustworthiness and support. Quite often large amounts of money are invested on quick-fix solutions recommended by external consultants, when the real solution pertains to management's willingness to accept responsibility for managing soft issues like organisational climate. Managers manage processes, but people are after all central to the success of these processes. Unless efforts are proactively directed towards addressing management's willingness and/or ability to manage these issues, no intervention strategy will succeed.

The present study was also of some diagnostic value to the organisation in question. In terms of the various collective climates, some concerns were raised with respect to perceptions of pressure or work load. Although the causes of the problem may be situational specific, they may generally be addressed by (a) reducing role ambiguity and/or conflict, (b) redistributing work responsibilities, (c) improving work procedures or (d) identifying training needs and providing training.

The observed relationship between cohesion and levels of affective commitment was of particular interest. In retrospect, this finding was not surprising at all. Interventions aimed at improving group cohesion should not, however, be limited to team building exercises. In stead, they should be extended to include processes such as recruitment and selection, industrial relations and management of diversity. It stands to reason that the sooner new recruits are made to feel part of the team (sense of belongingness) and are orientated in terms of the organisation's values, the higher the likelihood of these values being internalised by the recruits. Subsequently, affective commitment towards the organisation may be facilitated. Furthermore, effective recruitment strategies will ensure that prospective employees' value systems are congruent with that of the organisation. Finally, sensitivity towards cultural differences and/or healthy labour relations may greatly enhance team morale and functioning.

No mention has been made in the literature with respect to possible benefits or disadvantages of heterogeneous (as opposed to homogenous) organisational / collective climates. It is suggested, however, that the success of intervention strategies aimed at improving the organisational climate may be dependent on the degree to which perceptual agreement exists. Interventions will therefore have a higher success rate if they are customised to the needs of the target population.

### **7.3. LIMITATIONS OF THE STUDY**

A number of limitations of this study should be acknowledged.



- First it should be noted that the results presented were obtained from a fairly heterogeneous sample of workers, i.e. individuals representing a variety of different occupations. It is possible that this procedure may be masking important occupational differences. In light of the fact that the study was based on a single organisation in the mining industry care should be taken not to generalise the findings to other occupational groups or industries.
- Secondly, the scales used for measuring organisational commitment and organisational climate have some room for improvement. The high inter-dimensional correlations obtained for both the Organisational Commitment Scale and the Organisational Climate Questionnaire offers some cause for concern. Internal consistency and construct validity of the latter may also be improved.
- A third limitation of the present study is that it was solely based on respondents' self-reports. Method and response bias may therefore have inflated the relationships between the variables (Kamfer et al., 1993). Moreover the cross-sectional research design makes determination of causality problematic (O'Reilly et al., 1986). For instance, employees who demonstrate high organisational commitment levels are likely to perceive their organisations more positively, thus reinforcing existing collective / organisational climate perceptions. Longitudinal designs are therefore required in order to determine causality (Bateman et al., 1984).
- It should be noted that the collective climates identified in the present study do not necessarily represent formal work groups. It is possible that members of different work groups may harbour similar perceptions. Furthermore, it should be kept in mind that members' perceptions may not provide an accurate reflection of reality. This does not reduce the importance thereof.
- Finally, caution should be exercised when evaluating climate scores, as the cut-off decisions with respect to climate acceptability were made arbitrarily.

#### **7.4. RECOMMENDATIONS FOR FUTURE RESEARCH**

The following recommendations have been made for future research:



- The present study did not take into account possible effects of climate discrepancy on the outcomes that were investigated. Future research designs may thus benefit from including job satisfaction and/or climate discrepancy as independent variables of organisational climate and commitment on voluntary absenteeism remains to be tested in a similar context. Numerous studies have referred to job satisfaction as an independent variable of both organisational climate and commitment (Yousef, 2002).
- The existence of climate profiles has been previously suggested and is indicated by the present findings. Future research efforts directed at the analysis of climate profiles may prove to be valuable.
- Finally, some concerns have been raised with respect to the construct validity and reliability of the measures utilised. It appears that further refinement of the Organisational Commitment Scale and Organisational Climate Questionnaire is warranted. As far as could be discerned, no other study has reported a dual factor-analytical structure for the Affective Commitment Scale. It is therefore recommended that the factor structure of this scale be further explored.

## **7.5. CONCLUDING REMARKS**

The results of the present study are mostly encouraging. Having established a link between organisational climate and organisational commitment, it is now much easier to address commitment and turnover problems in a holistic manner. Management's role and responsibility have been strongly emphasised with respect to managing organisational climate. The relevance of both organisational climate and organisational commitment within the field of Organisational Psychology has been highlighted, despite the controversy surrounding these two topics. Lastly, as this study reports the perceptions of a group of culturally diverse employees working in a country other than the United States, it is felt that the literature base on commitment is added to and broadened.



## REFERENCES

- Allen, N.J. & Meyer, J.P. (1990a). The measurement and antecedents of affective, continuance and normative commitment to the organisation. **Journal of Occupational Psychology**, **63**, (2), 1 – 18.
- Anastasi, A. (1976). **Psychological Testing**. New York: MacMillan Publishing Company.
- Angle, H.L. & Perry, J.L. (1981). An Empirical Assessment of Organisational Commitment and Organisational Effectiveness. **Administrative Science Quarterly**, **26** (1), 1 – 14.
- Arnold, C. (1995). Some antecedents of employee commitment and their influence on job performance: a multi foci study. **South African journal of business management**, **26** (4), 25 – 35.
- Bartlett, G.A. (1999). **Die invloed van die implementering van 'n totalegehaltebestuursmodel op organisasieverbondenheid, werksbetrokkenheid en organisasiedoeltreffendheid.**  
Ongepubliseerde Magisterverhandeling, Universiteit van Stellenbosch, Stellenbosch.
- Bateman, T.S. & Strasser, S. (1984). A Longitudinal Analysis of the Antecedents of Organisational Commitment. **Academy of Management Journal**, **27** (1), 95 – 112.
- Becker, H.S. (1960). Notes on the concepts of commitment. **American Journal of Sociology**, **66**, 32 – 42.
- Becker, T.E. & Billings, R.S. (1993). Profiles of commitment: An empirical test. **Journal of Organisational Behaviour**, **14**, 177 – 190.
- Bennett, J. (2002). South African workers can't get no Satisfaction. **Sunday Times Business Times**. 13 Oct 2002.
- Berenson, M.L., Levine, D.M. & Goldstein, M. (1983). **Intermediate statistical methods and applications; a computer package approach.** Englewood Cliffs New Jersey: Prentice Hall.

- Bishop, J.W., Goldsby, M.G. & Neck, C.P. (2002). Who goes? Who cares? Who stays? Who wants to? The role of contingent workers and corporate layoff practises. **Journal of Managerial Psychology**, **17** (4), 298 – 315.
- Bohmer, D.G. & Mentz, P.J. (1994). Die verband tussen organisasiegesondheid en organisasieklimaat in sekondêre skole. **Suid-Afrikaanse Tydskrif vir Opvoedkunde**, **14** (2), 98 – 101.
- Boshoff, & Boer, . (1988). nAch training, organisational climate and organisational performance. **Development Southern Africa**, **5** (1). 16 –30.
- Boshoff, C. & Mels, G. (1995). Role stress and job satisfaction: their supervisory antecedents and their influence on organisational commitment. **Journal of Industrial Psychology**, **21** (1): 25 – 32.
- Brooke, P.P., Russell, D.W. & Price, J.L. (1988). Discriminant Validation of Measures of Job Satisfaction, Job Involvement and Organisational Commitment. **Journal of Applied Psychology**, **73** (2), 139 – 145.
- Buchanan, B. (1974). Building organisational commitment: the socialisation of managers in a work organisation. **Administrative Science Quarterly**, **19**, 533-546.
- Byrom, S. (2002). Climate Surveys. **People Dynamics**, **20** (5): 24 – 27.
- Caldwell, D.F., Chatman, J.A. & O'Reilly, C.A. (1990). Building organisational commitment: A multiform study. **Journal of Occupational Psychology**, **63**, 245 – 261.
- Calitz, L.P. & Shube, C.G. (1992). The influence of organisational climate on the relationship between principals and teachers. **Pedagogiekjoernaal**, **13** (2): 27 – 44.
- Coetsee, L.D. (1981). Organisation Diagnostic Questionnaire. National Productivity Institute, Pretoria.
- Coetsee, L.D. (1996). Die skep van 'n motiverende klimaat: 'n Praktiese gids vir die Suid-Afrikaanse Bestuurder. Potchefstroom: Nagraadse Skool vir Bestuurswese, PU vir CHO.



Coetsee, L.D. (1999). From resistance to commitment. **PAQ**, Summer, 205 – 222.

Coetsee, L.D. (2002). Peak Performance and Productivity: A practical guide for the creation of a motivating climate. Potchefstroom: Post Graduate School of Management,

Coetsee, L.D. & Pottas, C.D. (1990). Kommunikasie, organisasiegedrag en organisasie-ontwikkeling. **Communicare**, **9** (1), 43 – 54.

Conradie, F.W. (1990). **'n Bedryfsielkundige ondersoek na die invloed van organisasieklimaat op werkstevredenheid in die openbare sektor**. Ongepubliseerde Magisterverhandeling, Universiteit van Stellenbosch, Stellenbosch.

Cook, J. & Wall, T. (1980). New work attitude measures of trust, organisational commitment and personal need non-fulfilment. **Journal of Occupational Psychology**, **53**, (1), 39 – 52.

DeCottiis, T.A. & Summers, T.P. (1987). A Path Analysis of a Model of the Antecedents and Consequences of Organisational Commitment. **Human Relations**, **40** (7), 445 – 470.

Diedericks, P.C. (1996). **Die invloed van prestasiewaardes op organisasieverbintenis van werknemers in die motornywerheid**. Ongepubliseerde Magisterverhandeling, Universiteit van Pretoria, Pretoria.

Dippenaar, H. & Roodt, G. (1996). Aanpassing en evaluering van die Litwin en Stringer Klimaatmetingsvraely. **Journal of Industrial Psychology**, **22** (2), 20 – 25.

Drexler, J.A. (1977). Organisational Climate: Its Homogeneity Within Organisations. **Journal of Applied Psychology**, **62** (1), 38 – 42.

Du Toit, J. (1989). **'n Bedryfsielkundige ondersoek na die verband tussen werksbetrokkenheid, organisasie-betrokkenheid en werksprestasie**. Stellenbosch: Magisterverhandeling, Universiteit van Stellenbosch.

Eisenberger, R., Fasolo, P. & Davis-LaMatro, V. (1990). Perceived organisational support and employee diligence, commitment, and innovation. **Journal of Applied Psychology**, **75** (1), 51 – 59.

- Elizur, D. & Koslowsky, M. (2001). Values and organisational commitment. **International Journal of Manpower**, **22** (7), 1 – 5.
- Ferris, K.R. & Aranya, N. (1983). A comparison of two organisational commitment scales. **Personnel Psychology**, **36** (2), 87 – 99.
- Field, R.H.G. & Abelson, M.A. (1982). Climate: A reconceptualisation and proposed model. **Human Relations**, **35**, 181 – 201.
- Forehand, G. A. & Gilmer, B. (1964). Environmental variation in studies of organisational behaviour. **Psychological Bulletin**, **62**, (6), 361 – 382.
- Fukami, C.V. & Larson, E.W. (1984). Commitment to Company and Union: Parallel Models. **Journal of Applied Psychology**, **69** (3), 367 – 371.
- Gavin, J.F. & Howe, J.G. (1975). Psychological Climate: Some theoretical and empirical considerations. **Behavioural Science**, **20**, 228 – 240.
- Glick, W.H. (1985). Conceptualising and Measuring Organisational and Psychological Climate: Pitfalls in Multilevel Research. **Academy of Management Review**, **10** (3), 601 – 616.
- Govender, K.K. (1998). The relationship between the type of organisational socialisation, role and the organisational climate: a path analytical study. **Journal of Industrial Psychology**, **24** (3), 1 – 6.
- Greenberg, J. & Baron, R.A. (1997). **Behaviour in Organisations**. Englewood Cliffs New Jersey: Prentice-Hall Publishing.
- Guth, W.D. & Macmillan, I.C. (1984). Strategy implementation versus middle management self-interest. **Strategic Management Journal**, **7** (4), 313 – 327.
- Hemingway, M.A. & Smith, C.S. (1999). Organisational climate and occupational stressors as predictors of withdrawal behaviours and injuries in nurses. **Journal of Occupational and Organisational Psychology**, **72** (3), 285 – 299.



- Hoole, C. (1997). **Work commitment: Its dimensions and relationships with role stress and intention to quit**. Unpublished doctoral thesis. University of Pretoria, Pretoria.
- Hoy, W.K. & Miskel, C.G. (1987). **Educational administration: Theory, research and practice**. 3<sup>rd</sup> Edition. New York: Random House
- Hoy, W.K., Tarter, C.J. & Bliss, J.R. (1990). Organisational Climate, School Health, and Effectiveness: A Comparative Analysis. **Educational Administration Quarterly**, **26** (3), 260 – 279.
- Hrebiniak, L.G. (1974). Effects of Job Level and Participation on Employee Attitudes and Perceptions of Influence. **Academy of Management Journal**, **17** (4), 649 – 662.
- Hrebiniak, L.G. & Alutto, J.A. (1972). Personal and role related factors in the development of organisational commitment. **Administrative Science Quarterly**, **17** (2), 555 – 573.
- Hunt, J.G., Osborn, R.N. & Martin, H.J. (1981). A multiple influence model of leadership (Technical report no. 52). Alexandria, Virginia: U.S. Army Research Institute for Behavioural and Social Sciences.
- Huysamen, G.K. (1995). **Metodologie vir die sosiale en gedragwetenskappe**. Southern Boekuitgewers, Pretoria.
- Jackofsky, E.F. & Slocum, J.W. (1988). A longitudinal study of climates. **Journal of Organisational Behaviour**, **9**, 319 – 334.
- Jamal, M. (1990). Relationship of Job Stress and Type-A Behaviour to Employees' Job Satisfaction, Organisational Commitment, Psychosomatic Health Problems, and Turnover Motivation. **Human Relations**, **43** (8), 727 – 738.
- James, L.R. (1982). Aggregation Bias in Estimates of Perceptual Agreement. **Journal of Applied Psychology**, **67** (2), 219 – 229.

- James, L.R. & Jones, A.P. (1974). Organisational climate: A review of theory and research. **Psychological Bulletin**, **81** (12): 1096 – 1112.
- Johnston, H.R. (1976). A new conceptualisation of Source of Organisational Climate. **Administrative Science Quarterly**, **21**, 95 – 103.
- Joyce, W.F. & Slocum, J.W. (1982). Climate Discrepancy: Refining the concepts of Psychological and Organisational Climate, **35** (11), 951 – 972.
- Kamfer, L., Boshoff, A.B. & Venter, D.J.L. (1993). Dimensions of employee commitment in a South African Organisation: an exploratory study. **SAJEMS**, Autumn, 63 – 73.
- Kamfer, L., Venter, D.J.L & Boshoff, A.B. (1994). The Dimensions of employee commitment: a South African confirmatory factor analysis. **Journal of Industrial Psychology**, **20** (2), 1 – 7.
- Kanter, R.M. (1986). Commitment and social organisation: A study of commitment mechanisms in utopian communities. **American Sociological Review**, **33**, 499 – 517.
- Keefe, J.W., Kelley, E.A. & Miller, S.K. (1985). School Climate: Clear Definitions and a Model for A Larger Setting. **NASSP Bulletin**, November, 70 – 77.
- Kerlinger, F.N. (1986). **Foundations of behavioural research**. New York: Harcourt. Brace Publishers.
- Kinnear, L. & Sutherland, M. (2000). Determinants of organisational commitment amongst knowledge workers. **South African Journal of Business Management**, **31** (3), 106 - 112.
- Kline, P. (1994). **An Easy Guide to Factor Analysis**. London: Routledge.
- Koys, D.J. & DeCotiis, T.A. (1991). Inductive measures of Psychological Climate. **Human Relations**, **44** (3), 265 – 285.
- Kotzé, M. (1985). **‘n Ondersoek na die verband tussen organisasieklimaat en werkstevredenheid van vakkundige personeel in ‘n staatsdepartement**. Ongepubliseerde Magisterverhandeling, Universiteit van die Vrystaat.



- Lawler, E.E. (1992). **The ultimate advantage: creating the high involvement organisation**. San Francisco: Jossey-Bass.
- Lester, S.W. & Kickul, J. (2001). Psychological Contracts in the 21<sup>st</sup> Century: What Employees Value Most and How Well Organisations Are Responding to These Expectations. **Human Resource Planning**, **24** (1), 10 – 21.
- Lin, S. & Hsieh, A. (2002). Constraints of task identity on organisational commitment. **International Journal of Manpower**, **23** (2), 151 – 165.
- Litwin, G.H. & Stringer, R.A. (1968). **Motivation and organisational climate**. Boston: Division of Research, Graduate School of Business Administration, Harvard University.
- Luthans, F., Baack, D. & Taylor, L. (1987). Organisational Commitment: Analysis of Antecedents. **Human Relations**, **40** (4), 219 – 236.
- Maier, G.W. & Brunstein, J.C. (2001). The Role of Work Goals in Newcomers' Job Satisfaction and Organisational Commitment: A Longitudinal Analysis.
- Maitland, R. (2002). How to become an Employer of Choice. **People Dynamics**, **20** (7), 40.
- May, T.Y., Korczynski, M. & Frenkel, S.J. (2002). Organisational and occupational commitment: knowledge workers in large corporations. **Journal of Management Studies**, **39** (6), 775 – 801.
- McGee, G.W. & Ford, R.C. (1987). Two (or more?) dimensions of organisational commitment: Reexamination of the affective and continuance commitment scales. **Journal of Applied Psychology**, **72**, 638 – 641).
- McQuitty, L.L. (1960) Hierarchical syndrome analysis. **Educational and Psychological Measurement**, **20**, 293 – 304.
- Mentz, P.J. (1992). Meting van organisasieklimaat: 'n empiries-vergelykende ondersoek. **South African Journal of Education**, **12** (3), 313 – 319.

Meyer, J.P., Allen, N.J. & Gellatly, I.R. (1990b). Affective and Continuance Commitment to the Organisation: Evaluation of Measures and Analysis of Concurrent and Time-Lagged Relations. **Journal of Applied Psychology**, **75** (6), 710 – 720.

Meyer, J.P., Paunonen, S.V., Gellatly, I.R., Goffin, R.D. & Jackson, D.N. (1989). Organisational Commitment and Job Performance: It's the Nature of the Commitment That Counts. **Journal of Applied Psychology**, **74**, (1), 152 – 156.

Morris, J.H. & Steers, R.M. (1980). Structural Influences on Organisational Commitment. **Journal of Vocational Behaviour**, **17**, 50 – 57.

Morrow, P.C., Eastman, K. & McElroy, J.C. (1991). Concept Redundancy and Rater Naivety in Organisational Research. **Journal of Applied Social Psychology**, **21** (3), 219 – 232.

Mottaz, C.J. (1988). Determinants of Organisational Commitment. **Human Relations**, **41** (6), 467 – 482.

Mouton, J. (2001). **How to succeed in your Master's & Doctoral Studies**. Pretoria: Van Schaik Publishers.

Mowday, R.T., Steers, R.M. & Porter, L.W. (1979). The Measurement of Organisational Commitment. **Journal of Vocational Behaviour**, **14**, 224 – 247.

Muchinsky, P.M. (1976). An assessment of the Litwin and Stringer Organisation Climate questionnaire: an empirical and theoretical extension of the Sims and Lafollette study. **Personnel Psychology**, **29**, 371 – 392.

Nadler, D.A. & Tushman, M.L. (1980). A congruence model for organisational assessment. In Lawler, E.E., Nadler, D.A. & Camman, C. **Organisational Assessment**. New York: Wiley.

Naidoo, M.J. (1993). **Organisational Climate and Career Anchors in terms of Black Advancement**. Unpublished Master's thesis, University of Durban-Westville.



Nunnally, J.C. (1978). **Psychometric theory**. New York: Mcraw-Hill.

Payne, R. & Pugh, D.S. (1976). Organisation structure and climate. In Dunnette, M.D. (ed.), **Handbook of Industrial and Organisational Psychology**. Chicago: Rand McNally.

Poole, M.S. & McPhee, R. (1983). A structural analysis of organisational climate. In Putnam, L. & Pacanowsky, M. (Eds). **Communication and Organisations: An Interpretive Approach**. Beverly Hills: Sage.

O'Reilly, C. & Chatman, J. (1986). Organisational Commitment and Psychological Attachment: The Effects of Compliance, Identification, and Internalisation on Prosocial Behaviour. **Journal of Applied Psychology**, **71** (3), 492 – 499.

Penley, L.E. & Gould, S. (1988). Etzioni's model of organisational involvement: A perspective for understanding commitment to organisations. **Journal of Organisational Behaviour**, **9**, (1) 43 – 59.

Pritchard, R.D. & Karasick, B.W. (1973). The effect of organisational climate on managerial job performance and job satisfaction. **Organisational behaviour and human performance**, **9**, 126 – 146.

Randall, D.M. (1990). The consequences of organisational commitment: methodological investigation. **Journal of Organisational Behaviour**, **11**, 361 – 378.

Randall, D.M., Fedor, D.B. & Longenecker, C.O. (1990). The Behavioural Expression of Organisational Commitment. **Journal of Vocational Behaviour**, **36**, 210 – 224.

Reichers, A.E. (1985). A review and reconceptualisation of organisational commitment. **Academy of Management Review**, **10**, 465 – 476.

Rich, J.T. (2002). Sitting on a Gold Mine. Reducing Employee Turnover at All Costs. **World at Work Journal**, 2<sup>nd</sup> quarter, 44 – 51.

Rogers, E.D., Miles, W.G. & Biggs, W.D. (1980). The Factor Replicability of the Litwin and Stringer Organisational Climate Questionnaire: An Inter- and Intra-Organisational Assessment. **Journal of Management**, **6** (1), 65 – 78.

Roodt, G. (1992). Organisasieklimaat as voorspeller van organisasieverbondenheid: Getuienis van 'n suiwer kognitiewe definisie. **Acta Academica**, **24** (4), 109 – 122.

Roodt, G. (1997). Theoretical and empirical linkages between work-related commitment foci. **Journal of Industrial Psychology**, **23** (2), 6 – 13.

Rossouw, D.L. (1988). **Die verhoging van swart werknemers se organisasieverbondenheid**. Ongepubliseerde Magisterverhandeling, Universiteit van Pretoria, Pretoria.

Salancik, G.R. (1977). Commitment and the control of organisational behaviour and belief. In B.M. Staw & G.R. Salancik (Eds), **New directions in organisational behaviour**. Chacago: St. Clair Press.

SAS Institute Inc. (1988). **SAS/STAT user's guide**. 6<sup>th</sup> edition. Cary: SAS Institute Inc.

Schneider, G. (1975). Organisational Climates: An Essay. **Personnel Psychology**, **28**, 447 – 479.

Schneider, G. & Bartlett, C.J. (1968). Individual differences and organisational climate: The research plan and questionnaire development. **Personnel Psychology**, **21**, 323 – 333.

Schneider, B. & Reichers, A.E. (1983). On the etiology of climates. **Personnel Psychology**, **36**, 19 – 39.

Schroenn, T. (2002). Maximising Human Capital. **People Dynamics**, **20** (7), 33.

Schwepker, C.H. (2001). Ethical climate's relationship to job satisfaction, organisational commitment, and turnover intention in the salesforce. **Journal of Business Research**, **54** (1), 39 - 52.



Shadur, M.A., Kienzle R. & Rodwell, J.J. (1999). The relationship between Organisational Climate and employee perceptions of involvement. **Group and Organisation Management**, **24** (4), December 1999, 479 – 503.

Silver, P. (1983). Educational administration: **Theoretical perspectives on practice and research**. New York: Harper & Row Publishers.

Shore, L.M. & Martin, H.J. (1989). Job Satisfaction and Organisational Commitment in Relation to Work Performance and Turnover Intentions. **Human Relations**, **42** (7), 625 – 638.

Sims, H.P. & LaFollette, W. (1975). An assessment of the Litwin and Stringer Organisation Climate Questionnaire. **Personnel Psychology**, **28**, 19 – 38.

Smit, G.J. (1991). **Psigometrika – aspekte van toetsgebruik**. Pretoria: HAUM.

Smith, W.P., Barnard, A.L. & Steyn, H.S. (1988). Prestasiebeoordeling: 'n faktoranalitiese geldigheidstudie. **Journal of Industrial Psychology**, **14** (2), 19 – 24.

Smuts, E.M. (1996). **'n Onderzoek na die bestuur van organisasieklimaat binne 'n multikulturele onderwyspersoneelsamestelling**. Ongepubliseerde Magisterverhandeling, Universiteit van Suid-Afrika, Pretoria.

Tabachnick, B.S. & Fidell, L.S. (1989). **Using Multivariate Statistics**. New York: Harper Collins.

Tagiuri, R. & Litwin, G.W. (1968). **Organisational climate: Explorations of a concept**. (Eds) Boston: Harvard University, Division of Research, Graduate School of Business Administration.

Tustin, C.M. (1993). A consensus approach to the measurement of organisational climate. **Journal of Industrial Psychology**, **19** (1), 1 – 4.

Van der Walt, I.D. (1997). **'n Konseptuele ontleding van Belynde Verbondenheid in organisasie-verandering**. Ongepubliseerde Magisterverhandeling. Nagraadse Bestuurskool aan die Potchefstroomse Universiteit vir Christelike Hoër Onderwys, Potchefstroom.

Verwey, S. (1990). Methodological implications of a systems approach to organisational climate. **Communicare**, **2** (1), 21 – 42.

Ward, J.H. (1963). Hierarchical grouping to optimise an objective function. **Journal of the American Statistical Association**, **23**, 69 – 81.

Watson, G.W. & Papamarcos, S.D. (2002). Social capital and organisational commitment. **Journal of Business and Psychology**, **16** (4), 537 -552.

Weiss, D.J. (1976). Multivariate Procedures. In Dunnette, M.D. (ed.), **Handbook of Industrial and Organisational Psychology**. Chicago: Rand McNally.

Werbel, J.D. & Gould, S. (1984). A comparison of the relationship of commitment to turnover in recent hires and tenured employees. **Journal of Applied Psychology**, **69** (4), 687 – 690.

Whitener, E.M. (2001). Do “high commitment” human resource practices affect employee commitment? A cross-level analysis using hierarchical linear modelling. **Journal of Management**

Wiener, Y. (1982). Commitment in Organisations – A Normative View. **Academy of Management Review**, **7** (3), 418 – 428.

Witt, L.A., Patti, A.L & Farmer, W.L. (2002). Organisational Politics and Work Identity as Predictors of Organisational Commitment. **Journal of Applied Social Psychology**, **32** (3), 486 – 499.

Yousef, D.A. (2002). Job satisfaction as a mediator of the relationship between role stressors and organisational commitment. **Journal of Managerial Psychology**, **17** (4), 250 – 266.

Zohar, D. (1980). Safety Climate in Industrial Organisations: Theoretical and Applied Implications. **Journal of Applied Psychology**, **65**, 96 – 102.



# MEMORANDUM

## HUMAN RESOURCES DEPARTMENT

To : Heads of Departments  
Shafts & Services

From : Senior Manager: Human Resources

Date : 22 July 2002

### **QUESTIONNAIRE**

The attached questionnaire is part of a research attempt by one of our colleagues, Mrs Ilonka Heyligers-van Zyl, who is in the process of completing her Master's degree in Industrial Psychology. The results of the study will enable us to gain useful information regarding the prevailing Organisational Climate and individual Organisational Commitment. These two concepts are important as they affect absenteeism and labour turnover.

Kindly provide the necessary assistance in distributing and retrieving the questionnaires. Please return by latest 31 July 2002 to Ilonka van Zyl, XYZ Department.

Trusting that we can rely on your co-operation in this regard.

Regards,

**I.D. SURNAME**  
**SENIOR MANAGER: HUMAN RESOURCES**

## CLIMATE AND COMMITMENT QUESTIONNAIRE

### INSTRUCTIONS/ INSTRUKSIES

THE PURPOSE OF THIS QUESTIONNAIRE IS TO GAIN INSIGHT IN YOUR THOUGHTS AND FEELINGS REGARDING XYZ LTD. THINK ABOUT YOUR EXPERIENCES IN THIS COMPANY AND CONTINUE TO COMPLETE THE QUESTIONNAIRE.

DIE DOEL VAN HIERDIE VRAELYS IS OM INSIG IN U GEDAGTES EN GEVOELEN RONDOM XYZ BPK. TE VERKY. DINK NA OOR U ERVARINGE BINNE DIE MAATSKAPPY EN VOLTOOI DIE RES VAN DIE VRAELYS.

1. Kindly indicate your response on each question by checking off with a cross (X) one of the alternatives provided. Do not leave any questions out.

*Dui asseblief u antwoord op elke stelling aan deur een van die alternatiewe wat voorsien is met 'n kruisie (X) te merk. Moet geen vrae onbeantwoord laat nie.*

2. There is no time limit, but you are requested to complete the questionnaire in one uninterrupted session.

*Daar is geen tydsbeperking nie, maar u word versoek om die vraelys in een ononderbroke periode te voltooi.*

3. Take note that your participation in this survey remains **anonymous**. No form of identification (name, industry number etc) needs to be provided.

*Neem kennis dat u deelname **anoniem** bly. Geen vorm van identifikasie (naam, industrienommer ens.) hoef verstrekt te word nie.*

4. There are no wrong or right answers. Only your honest opinions are required.

*Daar is geen regte of verkeerde antwoorde nie. Slegs u eerlike mening is van belang.*

5. Do not reveal your answers to another person or discuss it with them.

*Moenie u antwoorde aan 'n ander persoon wys of dit met iemand anders bespreek nie.*



## BIOGRAPHICAL DATA

KINDLY COMPLETE THE FOLLOWING SECTION BY TICKING OFF THE APPROPRIATE BOXES:

1. AGE:

1 20 – 30 YRS	2 31 – 40 YRS	3 41 – 50 YRS	4 50+ YRS
------------------	------------------	------------------	--------------

2. GENDER:

Male

1

Female

2

3. OCCUPATION:

Accountant

1

Mine Overseer

2

Shift Supervisor

3

Technical Trainer

4

4. PATTERSON GRADE:

A Level

1

B Level

2

5. SHAFT / DEPARTMENT

1 A	2 B	3 C	4 D	5 E	6 F
7 G	8 H	9 I	10 J	11 K	12 L

**ADAPTED VERSION OF THE KOYS AND DECOTIIS SCALE**

1	2	3	4	5	6	7
I disagree completely	I moderately disagree	I slightly disagree	I do not agree nor disagree	I slightly agree	I moderately agree	I agree completely
Ek verskil geheel en al.	Ek verskil in 'n meerdere mate.	Ek verskil in 'n mindere mate.	Ek stem nie saam nie, maar verskil ook nie.	Ek stem in 'n mindere mate saam.	Ek stem in 'n meerdere mate saam.	Ek stem geheel en al saam.

	Item	1	2	3	4	5	6	7
1	I make most of the decisions that effect the way my job is performed. <i>Ek maak self die meeste van die besluite wat my werk raak.</i>							
2	I determine my own work procedure. <i>Ek bepaal my eie werkprosedures.</i>							
3	I schedule my own work activities <i>Ek skeduleer my eie werksaktiwiteite.</i>							
4	I set the performance standards for my job. <i>Ek stel my eie werkstandaarde.</i>							
5	I organise my work as I see best. <i>Ek organiseer my werk soos wat ek goed dink.</i>							
6	Impala employees support and help each other out. <i>Impala werknemers ondersteun en help mekaar.</i>							
7	Impala employees tend to get along with each other. <i>Impala werknemers is geneig om met mekaar oor die weg te kom.</i>							
8	Impala employees take a personal interest in one another. <i>Impala werknemers stel in mekaar se wel en weë belang.</i>							
9	There is a lot of team spirit among Impala employees. <i>Daar is heelwat spangees onder Impala werknemers.</i>							
10	I feel like I have a lot in common with the Impala employees I know. <i>Ek voel dat ek baie in gemeen het met die Impala werknemers wat ek ken.</i>							



1	2	3	4	5	6	7
I disagree completely	I moderately disagree	I slightly disagree	I do not agree nor disagree	I slightly agree	I moderately agree	I agree completely
Ek verskil geheel en al.	Ek verskil in 'n meerdere mate.	Ek verskil in 'n mindere mate.	Ek stem nie saam nie, maar verskil ook nie.	Ek stem in 'n mindere mate saam.	Ek stem in 'n meerdere mate saam.	Ek stem geheel en al saam.

	Item	1	2	3	4	5	6	7
11	I can count on my line manager to keep the things I tell him confidential. <i>Ek kan op my lynbestuurder staatmaak om ons gesprekke konfidensieel te hou.</i>							
12	My line manager has a lot of personal integrity. <i>My lynbestuurder het baie persoonlike integriteit.</i>							
13	My line manager is the kind of person I can level with. <i>My lynbestuurder is die tipe persoon met wie ek kan oop kaarte speel.</i>							
14	My line manager follows through on his commitments to me. <i>My lynbestuurder kom sy beloftes teenoor my na.</i>							
15	My line manager is not likely to give me bad advice. <i>Dit is onwaarskynlik dat my lynbestuurder vir my swak raad sal gee.</i>							
16	I have too much work and too little time to do it in. <i>Ek het te veel werk en te min tyd om dit te doen.</i>							
17	Impala is a relaxed place to work at. <i>Impala is 'n ontspanne plek om by te werk.</i>							
18	At home, I sometimes dread hearing the telephone ring because it might be someone calling about a job-related problem. <i>As die telefoon by die huis lui, vrees ek dat dit dalk in verband met werkverwante probleme mag wees.</i>							
19	I feel like I never have a day off. <i>Dit voel asof ek nooit 'n dag af het nie.</i>							
20	The demands of their jobs burn out too many Impala employees at my level. <i>Heelwat werknemers op my vlak brand uit as gevolg van hul veeleisende werk.</i>							

1	2	3	4	5	6	7
I disagree completely	I moderately disagree	I slightly disagree	I do not agree nor disagree	I slightly agree	I moderately agree	I agree completely
Ek verskil geheel en al.	Ek verskil in 'n meerdere mate.	Ek verskil in 'n mindere mate.	Ek stem nie saam nie, maar verskil ook nie.	Ek stem in 'n mindere mate saam.	Ek stem in 'n meerdere mate saam.	Ek stem geheel en al saam.

	Item	1	2	3	4	5	6	7
21	I can count on my line manager's support when I need it. <i>Ek kan staatmaak op my lynbestuurder se ondersteuning wanneer ek dit nodig het.</i>							
22	My line manager is interested in furthering my career within the company. <i>My lynbestuurder stel belang om my loopbaan binne die maatskappy te bevorder.</i>							
23	My line manager is behind me 100%. <i>My lynbestuurder staan 100% agter my.</i>							
24	My line manager is easy to talk to about job-related problems. <i>Dit is maklik om werkverwante probleme met my lynbestuurder te bespreek.</i>							
25	My line manager backs me up and allows me to learn from my mistakes. <i>My lynbestuurder ondersteun my en laat my toe om uit my foute te leer.</i>							
26	I can count on a pat on the back when I perform well. <i>Ek kan staatmaak op 'n klop op die skouer wanneer ek presteer.</i>							
27	The only time I hear about my performance is when I make mistakes. <i>My werksprestasie kom slegs ter sprake wanneer ek gefouteer het.</i>							
28	My line manager knows what my strengths are and lets me know about it. <i>My lynbestuurder ken my sterk punte en herinner my daaraan.</i>							
29	My line manager is quick to recognise good performance. <i>My lynbestuurder gee erkenning vir goeie werk gelewer.</i>							



1	2	3	4	5	6	7
I disagree completely	I moderately disagree	I slightly disagree	I do not agree nor disagree	I slightly agree	I moderately agree	I agree completely
Ek verskil geheel en al.	Ek verskil in 'n meerdere mate.	Ek verskil in 'n mindere mate.	Ek stem nie saam nie, maar verskil ook nie.	Ek stem in 'n mindere mate saam.	Ek stem in 'n meerdere mate saam.	Ek stem geheel en al saam.

	Item	1	2	3	4	5	6	7
30	My line manager uses me as an example of what to do. <i>My lynbestuurder gebruik my as 'n voorbeeld van hoe dinge gedoen behoort te word.</i>							
31	I can count on a fair shake from my line manager. <i>Ek kan daarop staatmaak dat my lynbestuurder my regverdig sal behandel.</i>							
32	The objectives my line manager sets for my job are reasonable. <i>Die werksdoelwitte wat deur my lynbestuurder gestel word is redelik.</i>							
33	My line manager is not likely to give me a "raw deal". <i>My lynbestuurder sal my nie benadeel nie.</i>							
34	My line manager does not play favourites. <i>My lynbestuurder het nie gunsteling nie.</i>							
35	If my line manager dismisses someone, the person probably deserved it. <i>Wanneer my lynbestuurder iemand afdank, het die persoon dit waarskynlik verdien.</i>							
36	My line manager encourages me to develop my ideas. <i>My lynbestuurder moedig my aan om my idees te ontwikkel.</i>							
37	My line manager likes me to try new ways of doing my job. <i>My lynbestuurder moedig my aan om nuwe maniere om my werk te doen uit te dink.</i>							
38	My line manager encourages me to improve on his methods. <i>My lynbestuurder moedig my aan om sy werkswyses te verbeter.</i>							

1	2	3	4	5	6	7
I disagree completely	I moderately disagree	I slightly disagree	I do not agree nor disagree	I slightly agree	I moderately agree	I agree completely
Ek verskil geheel en al.	Ek verskil in 'n meerdere mate.	Ek verskil in 'n mindere mate.	Ek stem nie saam nie, maar verskil ook nie.	Ek stem in 'n mindere mate saam.	Ek stem in 'n meerdere mate saam.	Ek stem geheel en al saam.

	Item	1	2	3	4	5	6	7
39	My line manager encourages me to find new ways around old problems.  <i>My lynbestuurder moedig my aan om nuwe oplossings vir ou probleme te vind.</i>							
40	My line manager encourages new ways of doing things.  <i>My lynbestuurder heg waarde aan nuwe benaderings tot ons werk.</i>							



**ADAPTED VERSION OF THE ALLEN AND MEYER SCALE**

1	2	3	4	5	6	7
I disagree completely	I moderately disagree	I slightly disagree	I do not agree nor disagree	I slightly agree	I moderately agree	I agree completely
Ek verskil geheel en al.	Ek verskil in 'n meerdere mate.	Ek verskil in 'n mindere mate.	Ek stem nie saam nie, maar verskil ook nie.	Ek stem in 'n mindere mate saam.	Ek stem in 'n meerdere mate saam.	Ek stem geheel en al saam.

	Item	1	2	3	4	5	6	7
1	I would be very happy to spend the rest of my career with this organisation. <i>Ek sou heeltemal tevrede wees om die res van my loopbaan aan hierdie organisasie te wy.</i>							
2	I enjoy discussing my organisation with people outside of it. <i>Dit is vir my aangenaam om die organisasie waarvoor ek werk met buitestaanders te bespreek.</i>							
3	I really feel as if this organisation's problems are my own. <i>Ek ervaar werklik die organisasie se probleme as my eie.</i>							
4	I do not feel like "part of the family" at my organisation. <i>Ek ervaar nie 'n besondere band ("deel van die familie") met hierdie organisasie nie.</i>							
5	I do not feel "emotionally attached" to this organisation. <i>Ek voel nie so "emosioneel aangetrokke" tot hierdie organisasie nie.</i>							
6	This organisation has a great deal of personal meaning for me. <i>Hierdie organisasie beteken persoonlik vir my baie.</i>							
7	I do not feel a strong sense of belonging to my organisation. <i>Ek het nie 'n sterk gevoel dat ek tot hierdie organisasie "behoort" nie.</i>							
8	I am not afraid of what might happen if I quit my job without having another one lined up. <i>Ek koester geen vrees vir die gevolge indien ek my werk sonder die sekerheid van 'n ander werk laat vaar nie.</i>							

1	2	3	4	5	6	7
I disagree completely	I moderately disagree	I slightly disagree	I do not agree nor disagree	I slightly agree	I moderately agree	I agree completely
Ek verskil geheel en al.	Ek verskil in 'n meerdere mate.	Ek verskil in 'n mindere mate.	Ek stem nie saam nie, maar verskil ook nie.	Ek stem in 'n mindere mate saam.	Ek stem in 'n meerdere mate saam.	Ek stem geheel en al saam.

	Item	1	2	3	4	5	6	7
9	It would be very hard for me to leave my organisation right now, even if I wanted to.  <i>Dit sal vir my uiters moeilik wees om hierdie organisasie op hierdie tydstip te verlaat, selfs al sou ek dit wou doen.</i>							
10	Too much in my life would be disrupted if I decided I wanted to leave my organisation right now.  <i>'n Besluit om hierdie organisasie nou te verlaat, sou my lewe te veel ontwrig.</i>							
11	Right now, staying with my organisation is a matter of necessity as much as desire.  <i>Tans is dit vir my begeerlik, sowel as noodsaaklik om by hierdie organisasie te bly.</i>							
12	I feel that I have too few options to consider leaving this organisation.  <i>Ek voel dat my opsies te beperk is om dit te oorweeg om hierdie organisasie te verlaat.</i>							
13	One of the few serious consequences of leaving this organisation would be the scarcity of available alternatives.  <i>Die skaarste aan alternatiewe werksopsies is een van die ernstige gevolge wat ek sou moet in ag neem indien ek die organisasie sou wou verlaat.</i>							
14	One of the major reasons I continue to work for this organisation is that leaving would require considerable personal sacrifice – another organisation may not match the overall benefits I have here.  <i>Een van die mees belangrike redes waarom ek vir hierdie organisasie bly werk, is die aansienlike persoonlike opofferings wat ek sou moes maak as ek sou bedank – 'n ander organisasie sou waarskynlik nie dieselfde voordele kon bied nie.</i>							



1	2	3	4	5	6	7
I disagree completely	I moderately disagree	I slightly disagree	I do not agree nor disagree	I slightly agree	I moderately agree	I agree completely
Ek verskil geheel en al.	Ek verskil in 'n meerdere mate.	Ek verskil in 'n mindere mate.	Ek stem nie saam nie, maar verskil ook nie.	Ek stem in 'n mindere mate saam.	Ek stem in 'n meerdere mate saam.	Ek stem geheel en al saam.

	Item	1	2	3	4	5	6	7
15	I think that people these days move from company to company too often.  <i>Ek voel dat mense deesdae te maklik van een maatskappy na 'n ander skuif.</i>							
16	One of the major reasons I continue to work for this organisation is that I believe that loyalty is important and therefore feel a sense of moral obligation to remain.  <i>Een van die belangrikste redes hoekom ek vir hierdie organisasie bly werk is my oortuiging dat lojaliteit belangrik is en ek dus moreel verplig voel om hier aan te bly.</i>							
17	If I got another offer for a better job elsewhere I would not feel it was right to leave my organisation.  <i>Indien ek 'n beter werksaanbod elders kry, sou ek voel dat dit nie reg is om hierdie organisasie te verlaat nie.</i>							
18	I was taught to believe in the value of remaining loyal to one organisation.  <i>Ek is geleer om in die waarde van blywende lojaliteit teenoor een organisasie te glo.</i>							
19	Things were better in the days when people stayed with one organisation for most of their careers.  <i>Dit het beter gegaan toe mense vir die grootste gedeelte van hul loopbane by dieselfde organisasie gebly het.</i>							
20	I do not think that wanting to be a "company man" or "company woman" is sensible anymore.  <i>Ek dink nie dit maak meer sin om 'n persoon ("maatskappypersoon") te wees wat slegs vir die maatskappy wil lewe nie.</i>							

**ADAPTED VERSION OF THE SHORE & MARTIN SCALE**

- A. Which of the following statements most clearly reflects your feelings about your future with this organisation in the next year? / *Watter van die volgende stellings verteenwoordig u gevoelens die beste rondom u toekoms in hierdie organisasie in die volgende jaar?*

I definitely will not leave. 1	I probably will not leave 2	I am uncertain 3	I probably will leave 4	I definitely will leave. 5
Ek sal beslis nie bedank nie.	Dit is onwaarskynlik dat ek sal bedank.	Ek is onseker	Ek sal waarskynlik bedank	Ek sal definitief bedank.

- B. How do you feel about leaving XYZ? / *Hoe voel u daaroor om XYZ te verlaat?*

I am presently planning to leave. 1	I am seriously considering leaving in the near future 2	I have no feelings about this one way or the other. 3	As far as I can see ahead, I intend to stay with this organisation. 4	It is very unlikely that I would ever consider leaving this organisation. 5
Ek is van plan om te bedank.	Ek oorweeg dit om te bedank.	Ek is neutraal.	So ver as wat ek kan voorsien, beoog ek om by hierdie maatskappy te bly.	Dit is baie onwaarskynlik dat ek sal bedank.

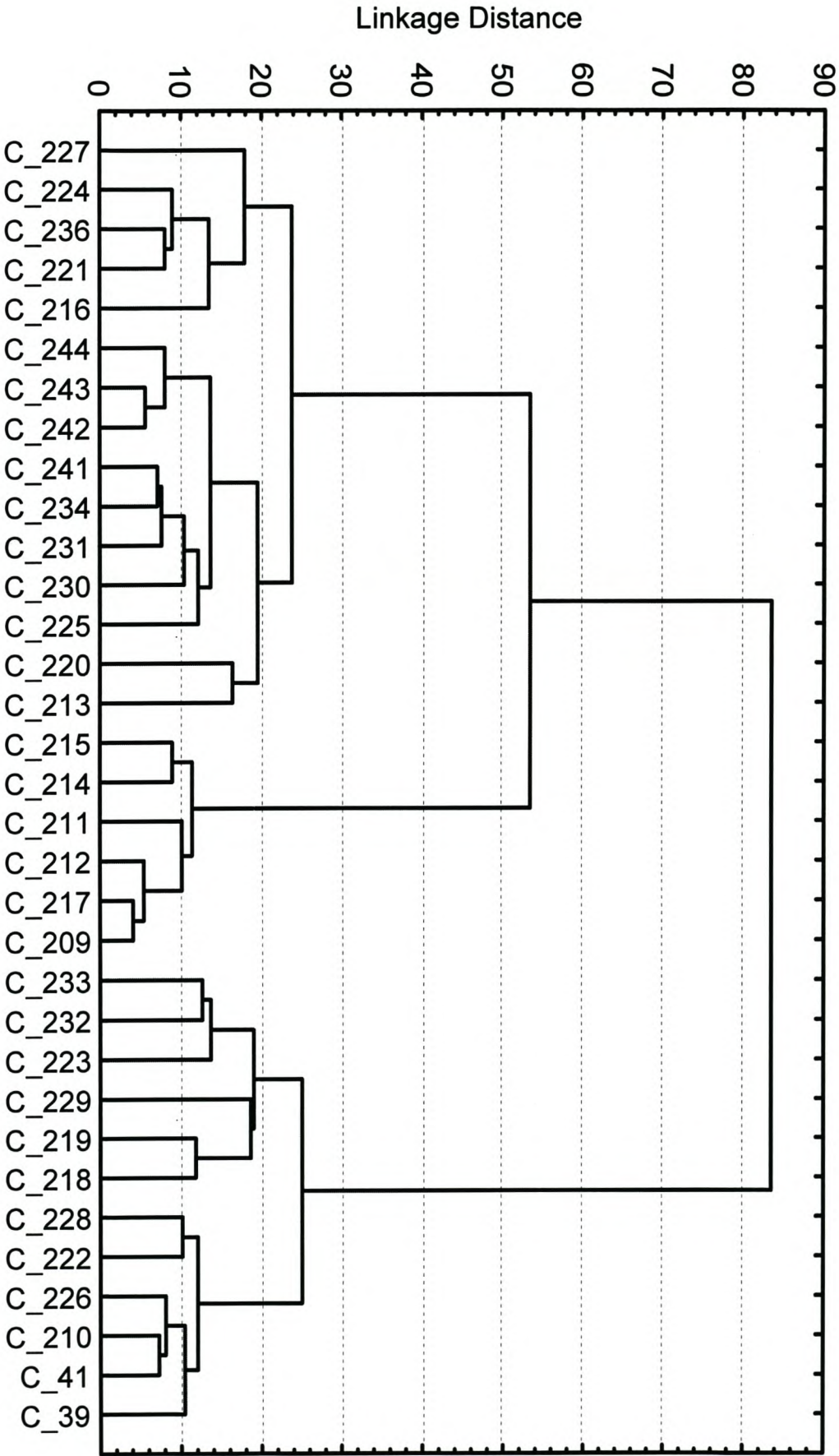
- C. If you were completely free to choose would you prefer or not prefer to continue working for XYZ? / *As u kon kies, sou u verkies om in diens van XYZ te bly?*

I prefer very much to continue working for this organisation. 1	I prefer to work here. 2	I don't care either way. 3	I prefer not to work here. 4	I prefer very much not to continue working for this organisation. 5
Ek wil graag by hierdie organisasie werk.	Ek verkies om hier te werk.	Ek gee nie eintlik om nie.	Ek verkies om nie hier te werk nie.	Ek wil glad nie by hierdie organisasie werk nie.

- D. How important is it to you personally that you spend your career in XYZ rather than some other organisation? / *Hoe belangrik is dit vir u as persoon om in diens van XYZ te bly, in teenstelling met een of ander maatskappy?*

It is of no importance at all. 1	I have mixed feelings about its importance. 2	It is of some importance. 3	It is fairly important. 4	It is very important for me to spend my career in this organisation. 5
Dit is glad nie belangrik nie.	Ek het gemengde gevoelens rondom dit.	Dit is effens belangrik	Dit is redelik belangrik	Dit is uiters belangrik dat ek die res van my loopbaan hier spandeer.



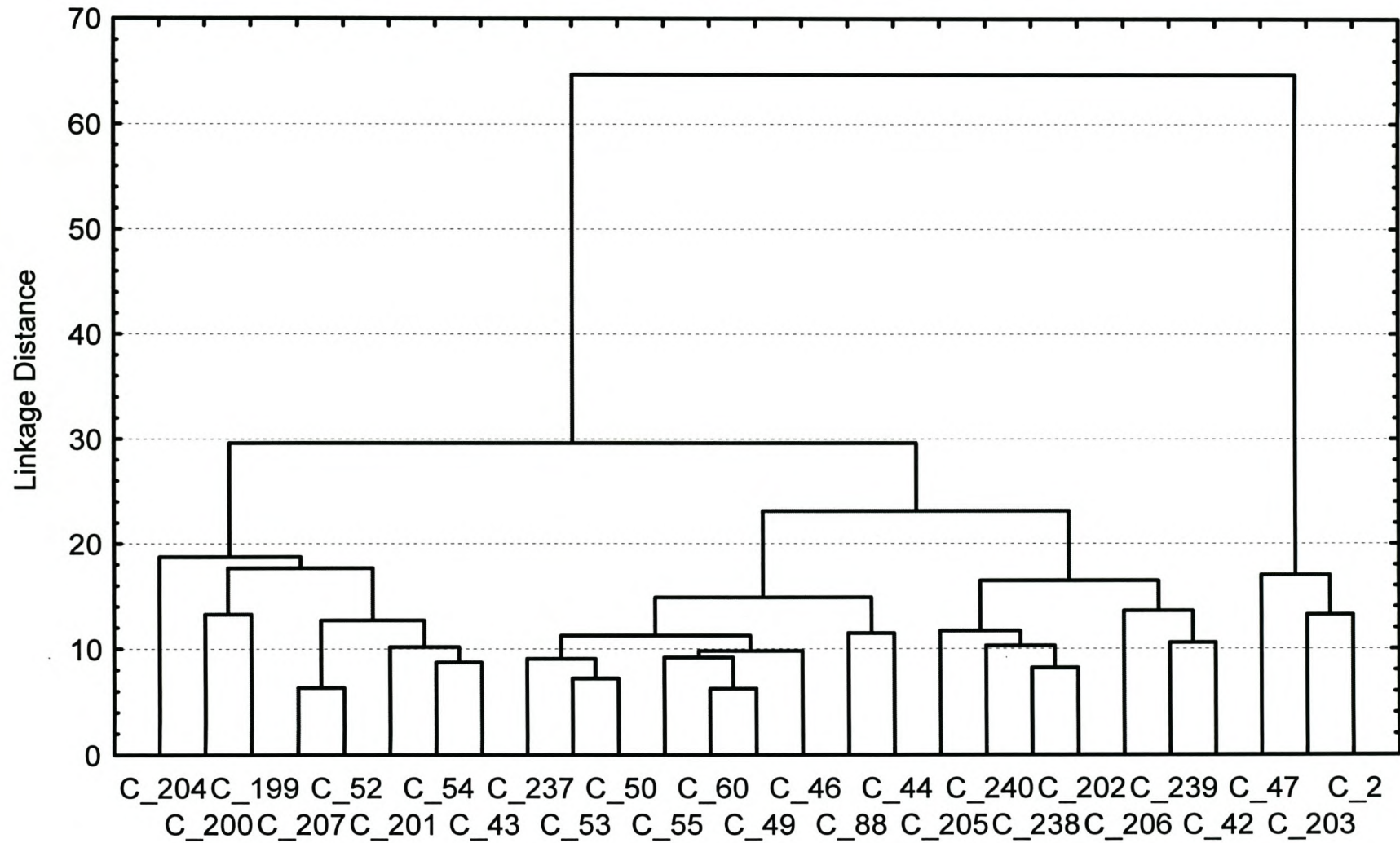


### Tree Diagram for 27 Cases

Ward's method

Euclidean distances

Shaft B



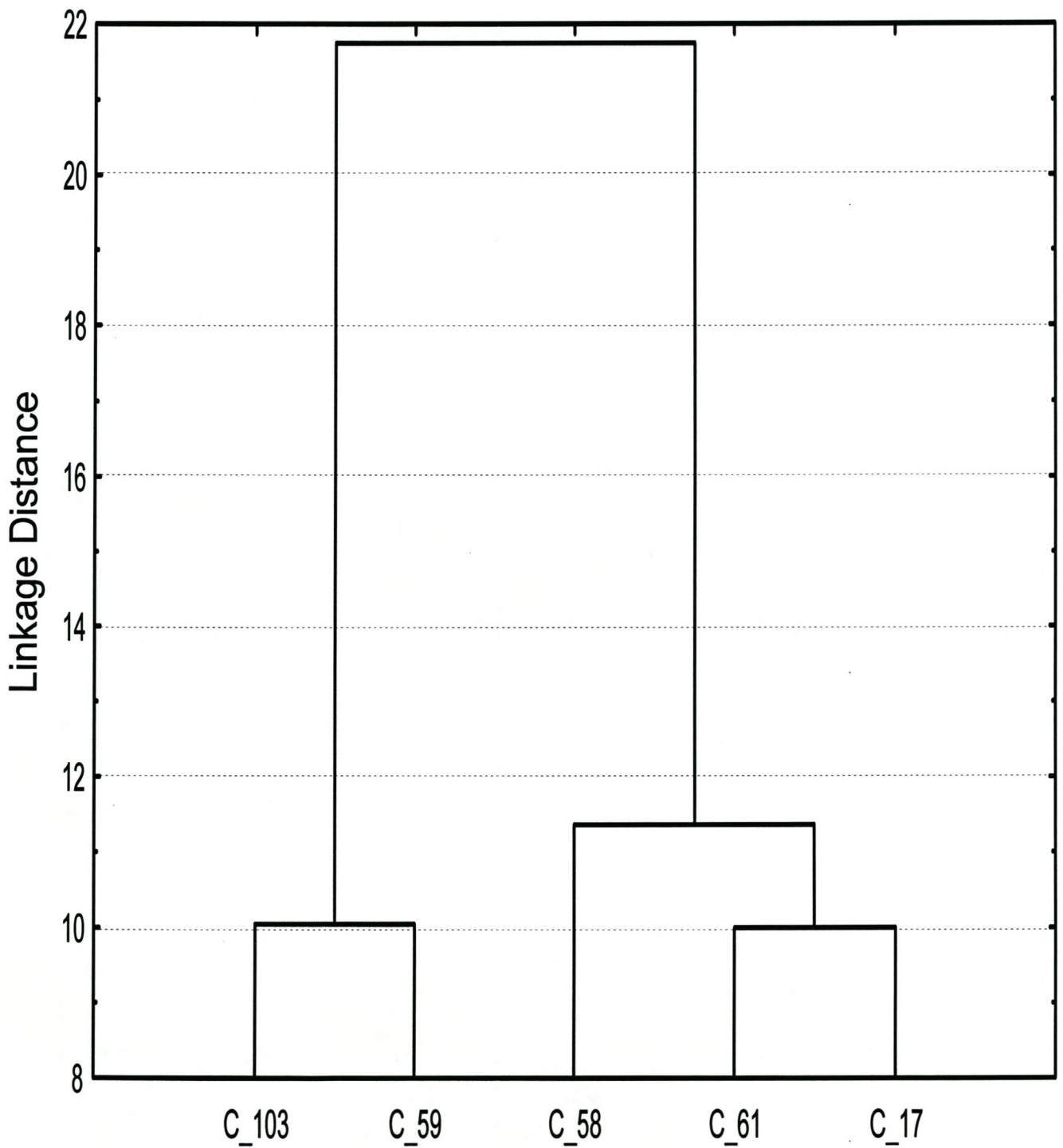


### Tree Diagram for 5 Cases

Ward's method

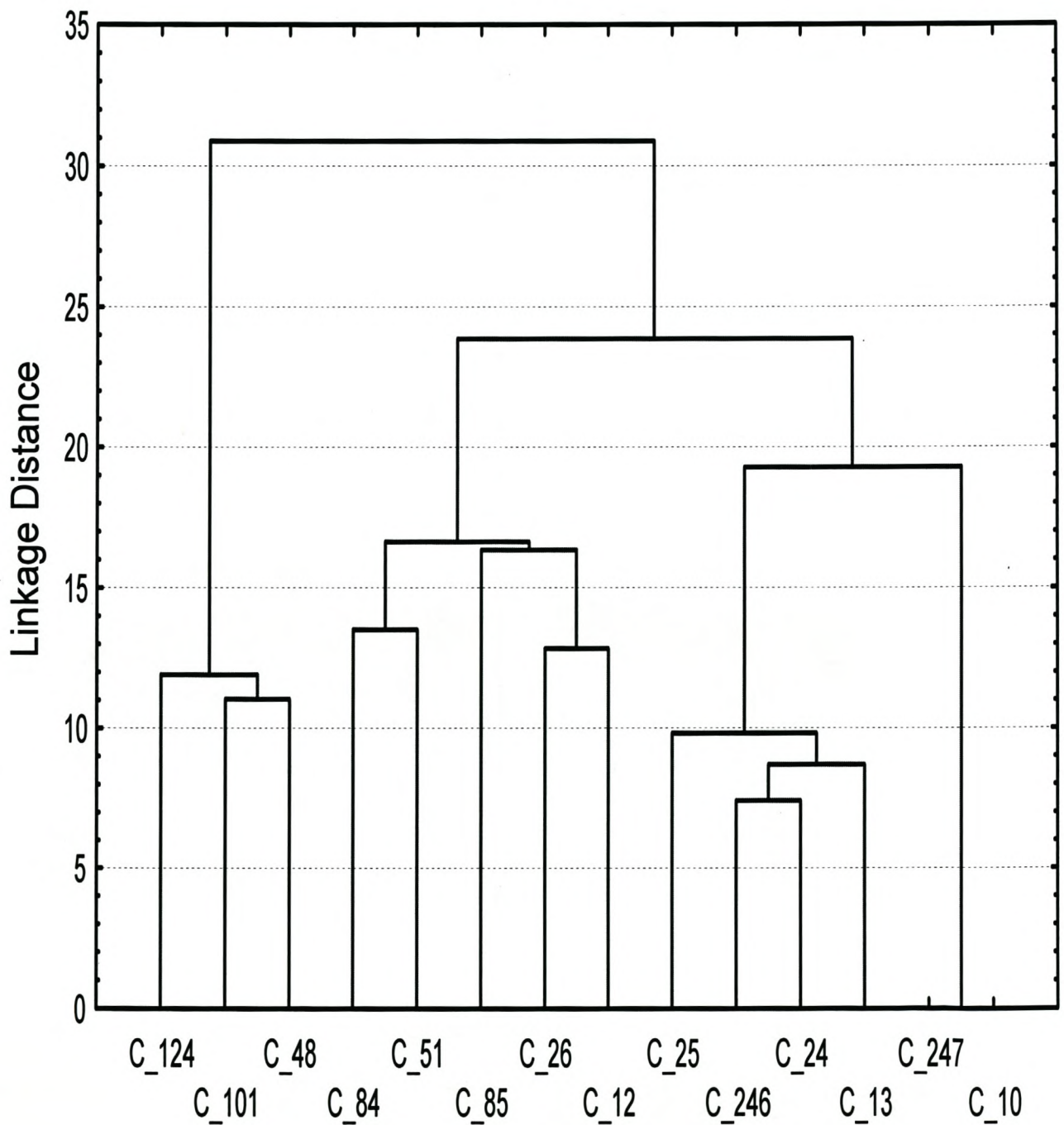
Euclidean distances

Shaft C



### Tree Diagram for 14 Cases

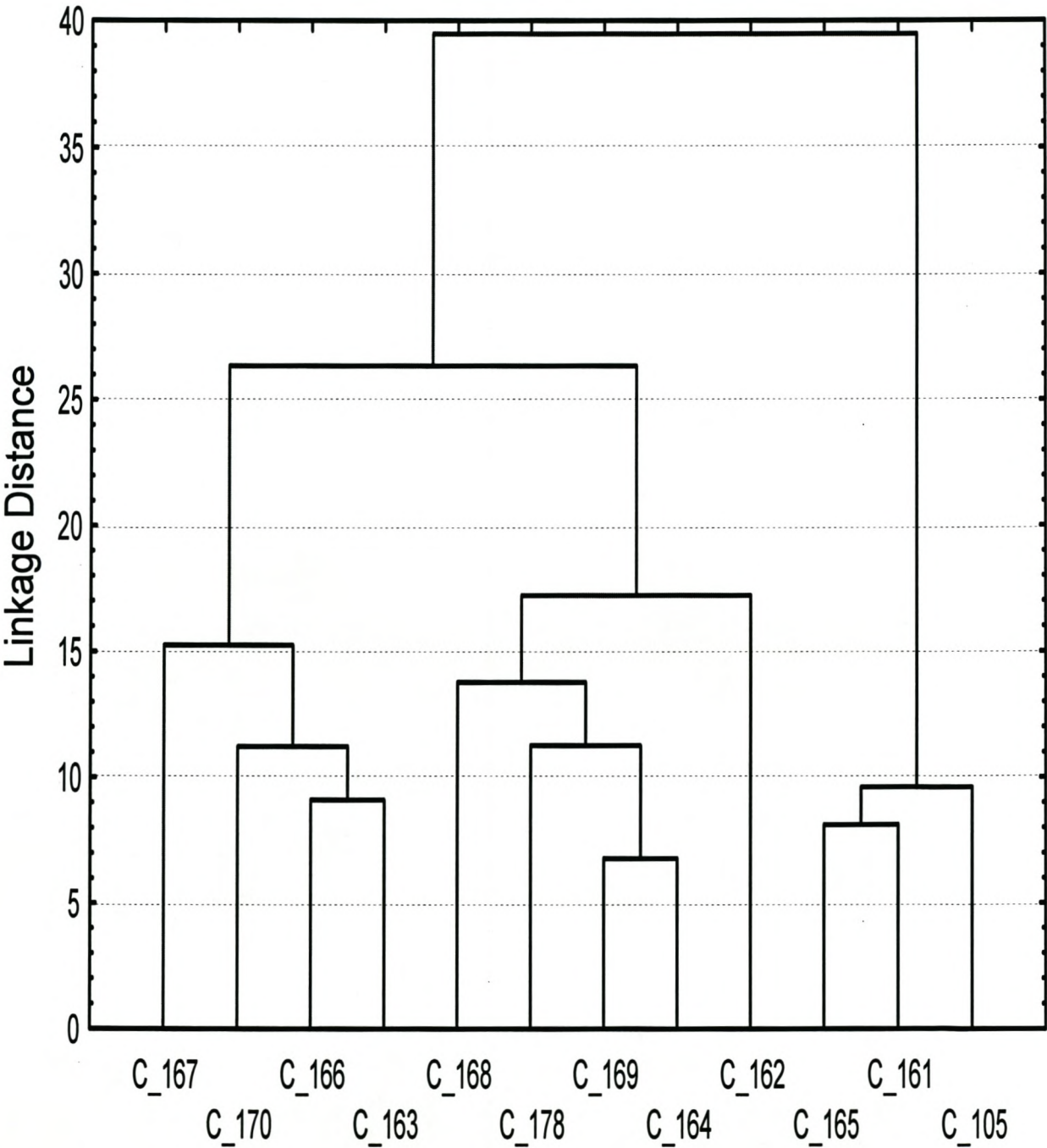
Ward's method  
Euclidean distances  
Shaft D





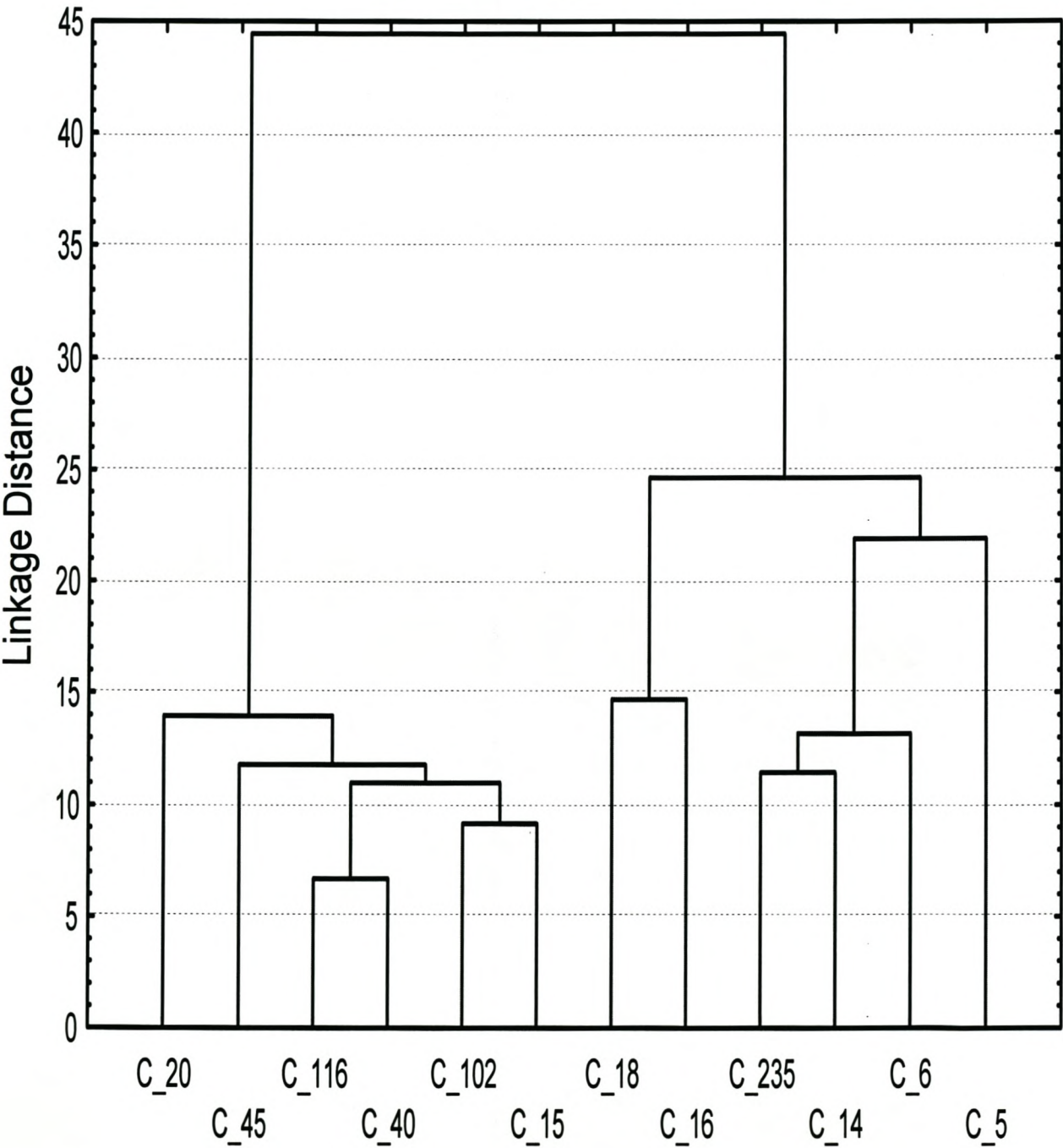
Tree Diagram for 12 Cases

Ward's method  
Euclidean distances  
Shaft E



Tree Diagram for 12 Cases

Ward's method  
Euclidean distances  
Shaft F



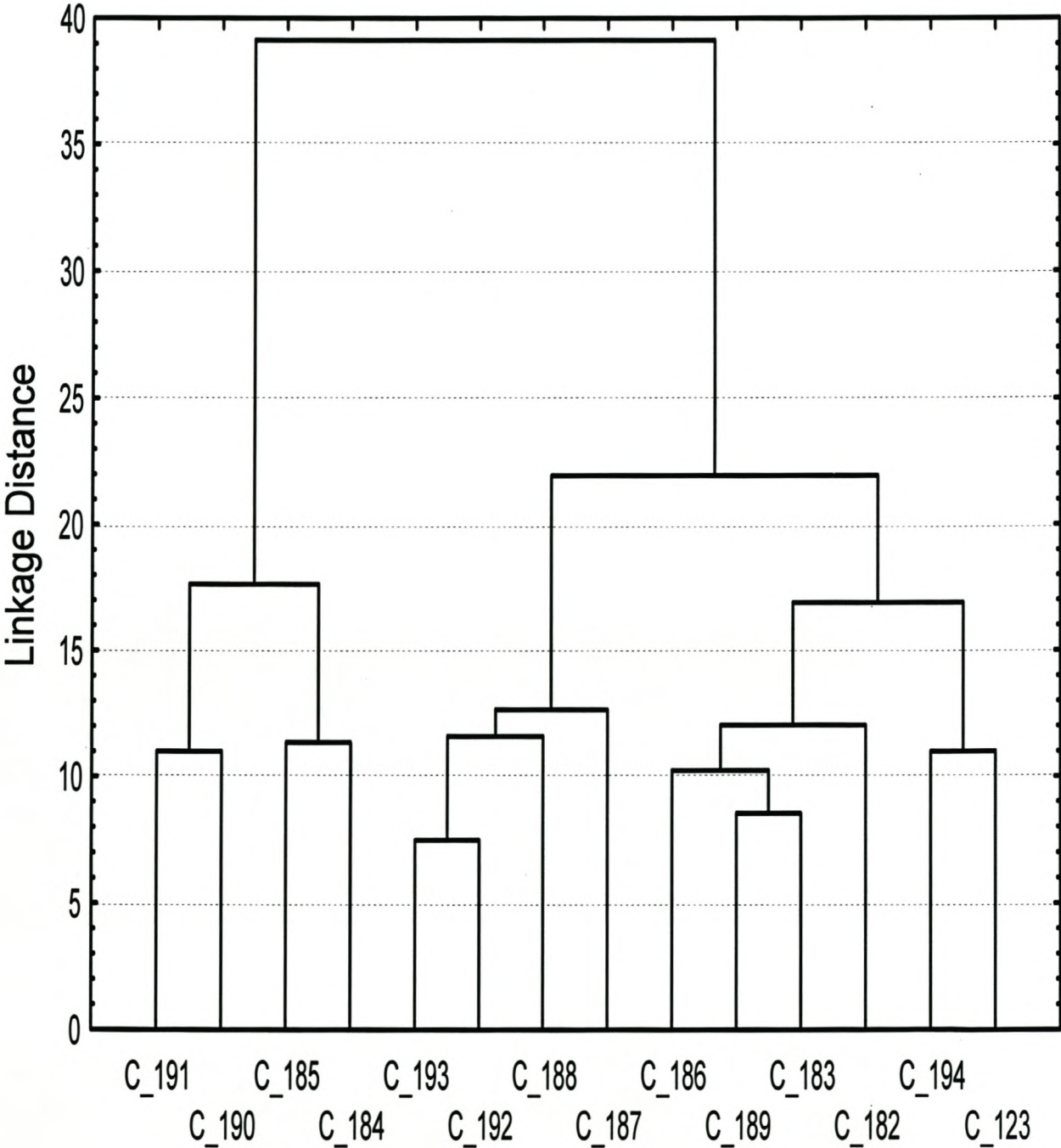


Tree Diagram for 14 Cases

Ward's method

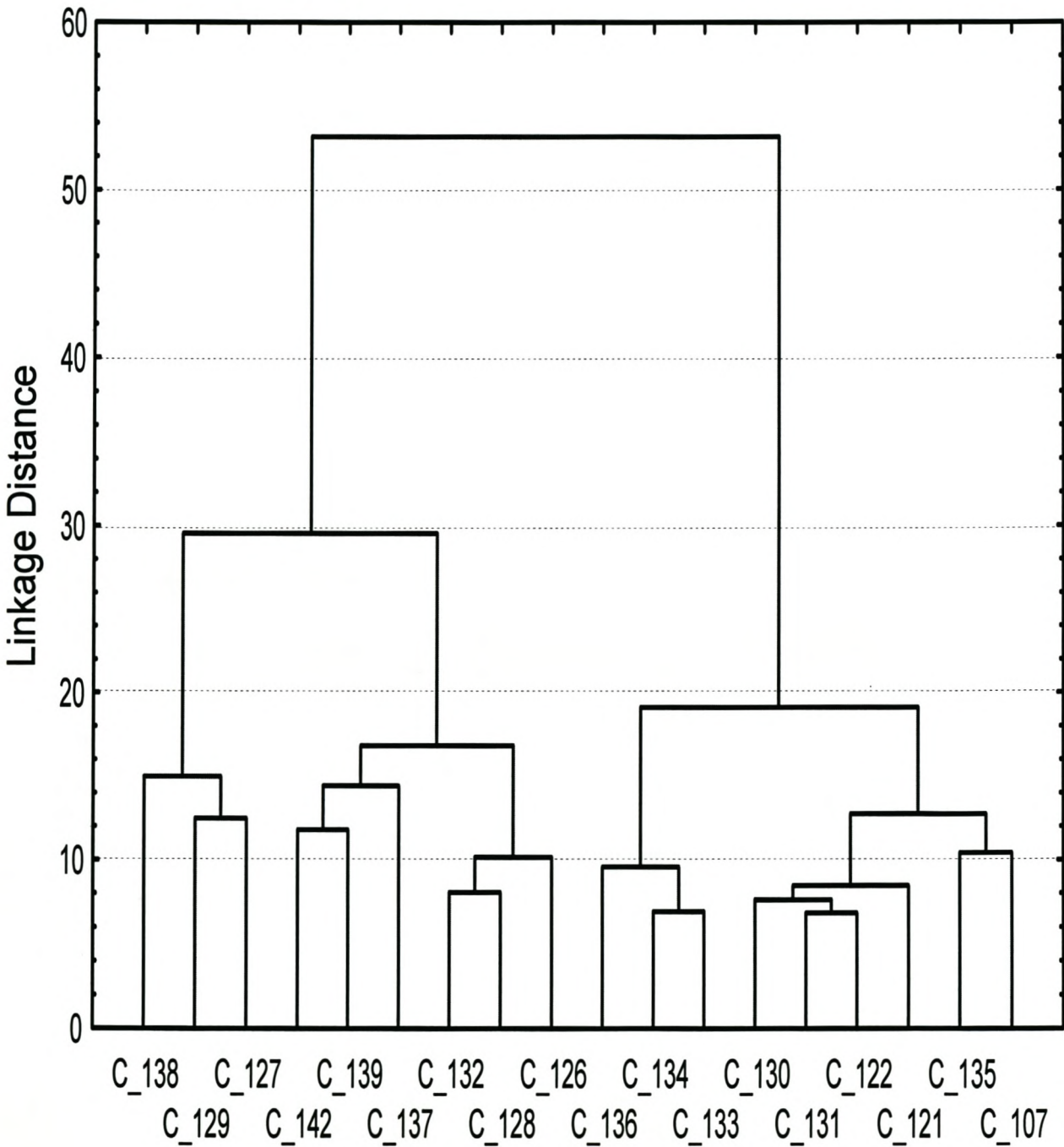
Euclidean distances

Shaft G



Tree Diagram for 18 Cases

Ward's method  
Euclidean distances  
Shaft H



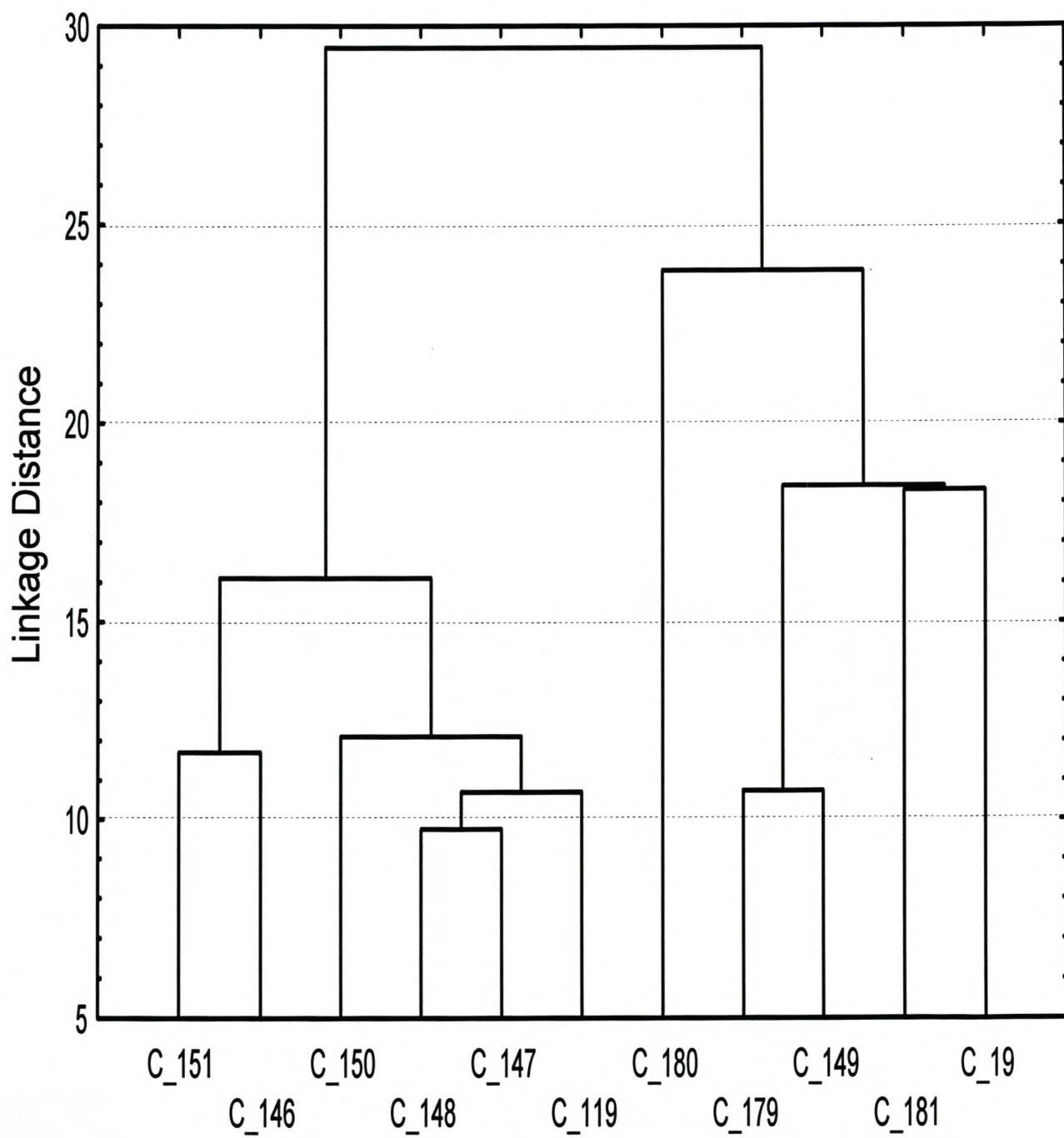


### Tree Diagram for 11 Cases

Ward's method

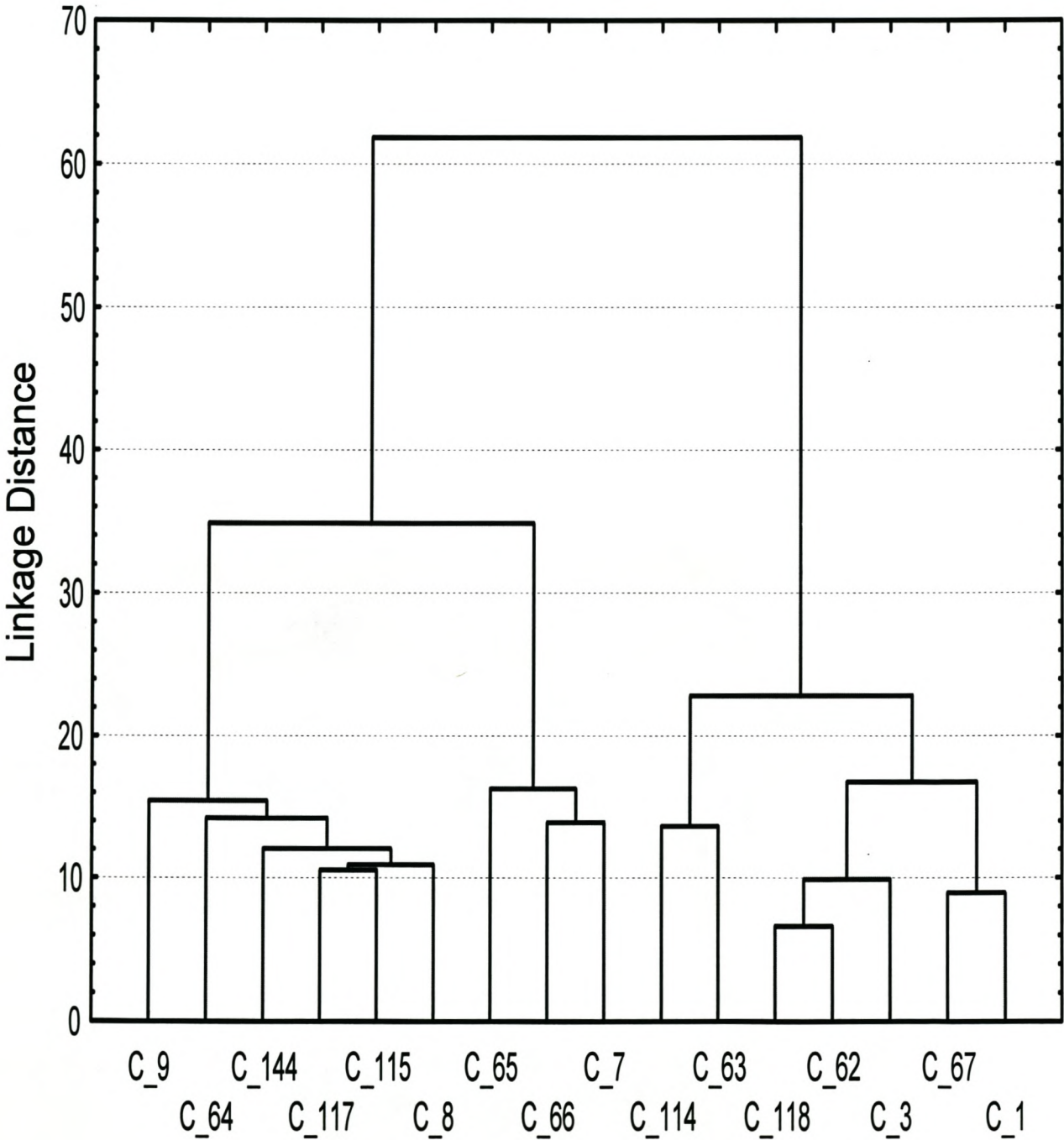
Euclidean distances

Shaft I



Tree Diagram for 16 Cases

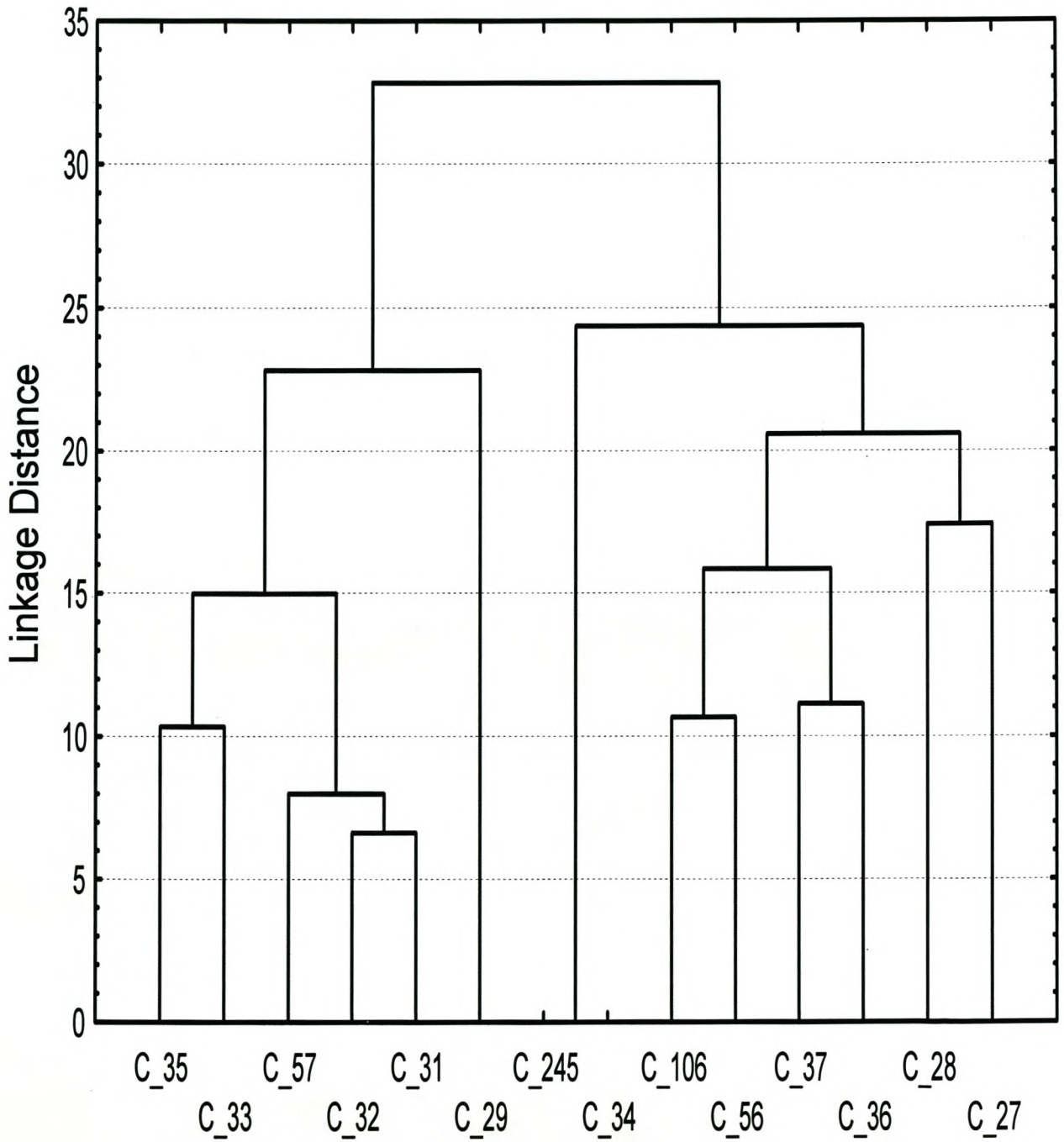
Ward's method  
Euclidean distances  
Shaft J

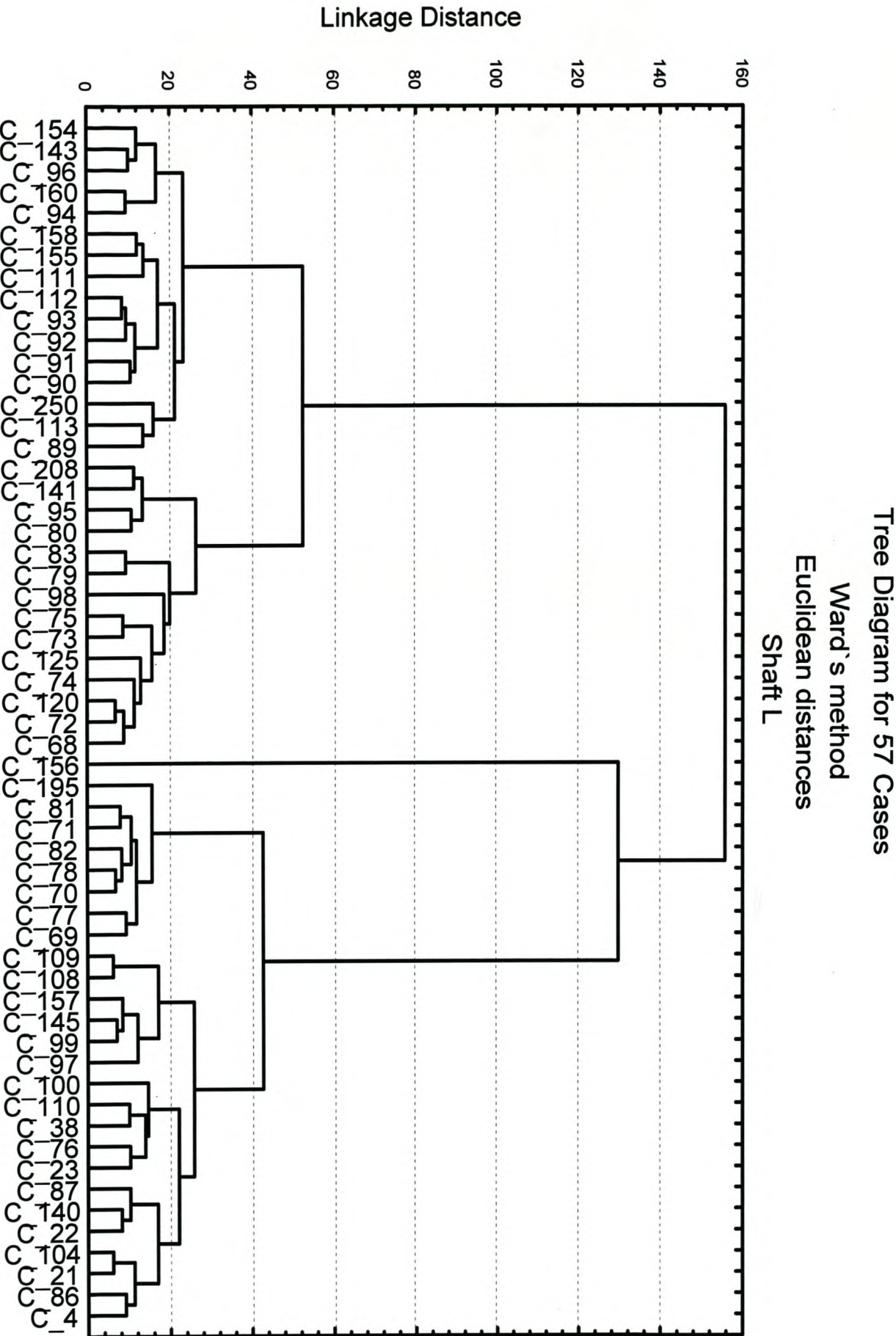




### Tree Diagram for 14 Cases

Ward's method  
Euclidean distances  
Shaft K







The relationship between collective climate, organisational commitment and intention  
to stay

by Ilonka Heyligers-van Zyl

Thesis presented in fulfilment of the requirements for the degree of Master of  
Economic Sciences at the University of Stellenbosch.

Mr. A.F. Schlechter

March 2003

## **DECLARATION**

I, the undersigned, hereby declare that the work contained in this thesis is my own original work and that I have not previously in its entirety or in part submitted it at any university for a degree.

---

**Signature**

---

**Date**